THE ACCOUCHEUR'S Vade Mecum.

BY

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PHYSICIAN EXTRAORDINARY

TO

HIS ROYAL HIGHNESS the DUKE of KENT's HOUSEHOLD,

AND

PHYSICIAN ACCOUCHEUR

TO THE

WEST LONDON INFIRMARY

AND

LYING-IN INSTITUTION.

IN TWO VOLUMES.

VOL. II.

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ADVERTISEMENT.

THE best commendation of the Accoucheur's Vade Mecum, is its rapid passage through the former editions. It was originally composed in a small volume, intended for the convenience of carrying it in the pocket; but owing to repeated additions which has been found necessary to make, its different heads are so augmented, that the size of the book would now be too large to answer that intention; consequently, the present impression is formed into two portable volumes.

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THE

ACCOUCHEUR'S VADE MECUM.

VOL. II.

CHAP. I.

FIRST CLASS.

NATURAL LABOR.

Classification of Labor.

PARTURITION is divided into five classes.

First, Natural;

Second, Premature;

Third, Protracted;

Fourth, Preternatural; and

Fifth, Complex.

The first three admit of no division, they may be accomplished by the efforts of nature;

therefore, it seems extraordinary that those are the only classes, especially the third, wherein the use of instruments are frequently had recourse to. But by attention, when first called to a patient in consultation, we almost invariably find, that the natural order of labor, has been previously interrupted by injudicious interposition in

The premature rupture of the membranes;

The artificial dilatation of the os uteri; or

Other exertions, producing inflammation of the generative organs; which may, probably occur, from

Inexperience;

Not being sufficiently acquainted with nature; or,

Not relying on those powers, to effect the process,

The fourth class has two divisions; the first is that in which the breech, either of the inferior extremities or both of the legs present, wherein no professional interference ought to be adopted, as by waiting, nature will eventually complete the process. The second division of the same class, is that in which the shoulder enters the pelvic cavity, or an arm

emerges through the os externum. In this manual assistance is sometimes necessary, and absolutely requisite, namely, to turn the fœtus.

The fifth kind of labor, is arranged into four divisions; the principle cases of danger referred to, are those, when

Hemorrhage,

Convulsions, or

Descent of the funis occur. The peculiarities and treatment of all which, are noticed under their respective class; and are rendered easy to the comprehension of the youngest student, elucidating the science progressively, from the natural process to the most complex.

Natural Labor.

Having in the former volume, explained the various morbid and sympathetic affections of the female constitution, the parts concerned in utero-gestation, and parturition, the preparatory changes which they necessarily undergo, the management of patients till the end of pregnancy, the mode of conduct to be observed by the Accoucheur, when his presence is required, and the various cautions during

labor, the natural mode of that process comes next to be described.

No one acquires competent ideas of parturition, by theoretical description alone, but when a correct definition, is aided by practical illustrations, its knowledge is readily attainable; and the student, who has directed his attention thereto, soon becomes initiated into every branch of the obstetric art.

The term *labor* has a Latin derivation, and carries the association of toil; hence it has been adopted, to signify the art of parturition, or that series of painful efforts, made by the uterus to expel the child, its appendages and involucrum.

Definition.

Natural labor, has certain defined features, which distinguish it from others, and consist in,

First, The process commencing at the full period of utero-gestation;

Second, It being completed in twenty-four hours from its establishment;

Third, Without the assistance of art; and,

Fourth, The head presenting.

The Head

Is known by its
Rotundity,
Bulk,
Firmness,
Fontanels, and
Sutures; the two latter, allow the bones to lap over each other, and diminish the size of the cranium.

Presentation.

It is requisite to have precise notions of the distinction between the presentation and situation, they being differently understood.

That part of the child which is opposite to the centre of the pelvis, is the presentation, it may be the head, but differently situated; as vertex, forehead, or ear.

The face may advance, termed a face presentation, but the disposition of the chin is the situation, it may be to the pubes or perinæum. In a breech presentation, the thighs are the

situation; they may be to the sacrum, or in a diagonal direction, still the presentation is the same, though its situation is different.

Natural Presentation.

The head advancing forms what is so denominated.

Standard Presentation.

This is constituted by

First, The face inclining to the sacrum;

Second, The occiput towards the pubes; and

Third, The vertex capitis in a direct line with the axis of the upper cavity of the pelvis.

Mal-Positions.

These are deviations from the standard presentation, formed by

First, The face inclining to the pubes, and the anterior fontanel downwards.

Second, An ear or side of the head presenting.

Third, An arm emerging with the head; and,

Fourth, The face advancing.

Stages.

The process of labor, has been divided by writers, into four stages, which, for better comprehension, have also their corresponding characters annexed to each, viz :

The first is the most tedious stage.

The second the most painful.

The third the most expeditious, and

The fourth the most critical.

First Stage.

At the commencement of labor, the head of the fœtus is situated in the superior aperture of the pelvis, with the diameters of the containing and contained approximating to each other, in a corresponding ratio, and the vertex of the cranium, occupying the centre. The finger may easily ascertain the sagittal and afterwards the lambdoidal suture; the sagittal is the point from wh[illegible] e proce[illegible]

the finger is readily led to the angle formed by the posterior edges of the parietal bones, we may be sure that the presentation is favourable. The head proceeds in the axis of the superior cavity, and the posterior fontanel turning forwards, by the obliquity of the pelvis in proportion to its descent, brings the shoulders in a diagonal direction towards the brim of the pelvis.

The head entering the cavity, with

The forehead near the hollow of the sacrum,

The occiput to the symphysis, and

The sagittal suture, on the perinæum, completes this, which is termed

The most tedious Stage.

Produced by,

First, The contracted state of the os uteri, and vagina, requiring a considerable space of time for their relaxation, and distention; and,

Second, During the same period, the longitudinal fibres of the uterus only having power to act.

Second Stage.

In this the head advances in the direction of the inferior cavity.

The os uteri becomes fully dilated, which forms the uterine and vaginal cavities into one continuous canal; the circumference of the head of the fœtus occupies the inferior part of the former, and superior portion of the latter.

The membranes assist in dilating the lower extremity of the vagina and os externum as they precede the head, though the latter alone accomplishes it, when the former are previously ruptured.

The perinæum gradually increases in its breadth; but, not uniformly, for when the pains go off the head recedes, and the parts are relaxed. Afterwards the presentation descends so low, that

The external surface is kept permanently upon the stretch, forming an enlargement, denominated the vaginal or perinæal tumor.

The anus is carried forwards.

The perinæum is stretched to twice its natural length.

The labia are elongated.

The orifice of the vagina dilated; and

The edge of the frænum labiorum extended so thin, that its line can scarcely be perceived, where it bounds the cranium. Soon after the perinæum begins to glide from the vertex, and slips over

The anterior fontanel;

The forehead;

The face; and

The chin; so the head is delivered, whilst the occiput is opposed to the pubes, which places it directly between the shoulders, from resting on the breast, and taking a quarter-round turn, brings the shoulders to the inferior part of the sacrum, and pubes, which finishes this, denominated

The most painful Stage,

Occasioned by,

The contraction of the longitudinal and circular fibres of the uterus;

The obliteration of the os internum; and,

The complete dilatation of the vagina, os externum, and vulva.

Third Stage.

The uterus after a short interval of rest, recommences its contractile powers, to pass the shoulders, body, breech, and extremities of the child, through the os externum, with one side to the coccyx, and the other to the pubes, which completes

The most expeditious Stage.

The former two having brought the inferior generative parts into a state of perfect dilatation, infers that in the present stage, a few expulsatory efforts may expel the remainder of the child.

Fourth Stage.

The secondary action of the uterus depends upon the renewal of the patient's strength, exhausted during the birth of the child; gene-

rally we find from thirty minutes to an hour, or probably it may be several hours before pains are felt sufficient to evidence such a permanent contraction of the uterus, as tends to

Separate the placenta and membranes,
Exclude them,
Close the uterine vessels, and
Prevent hemorrhage, which completes,

The most critical Stage.

Induced by the disposition of
The placenta to adhere to the uterus;
The latter to invert,
The uterine vessels to hemorrhage;
The soft parts to inflame, and
The patient to syncope or extreme debility.

Insertion of the Funis.

The low attachment of the umbilical cord on the abdomen.

First, Places the greatest weight from the navel upwards;

Second, Fulfils a law in nature, which or-

dains the head of animals to be born first; and,

Third, Prevents the death of the fœtus by compression in natural labor; as the superior parts will be delivered, and the child capable of respiration, before the navel enters the pelvic cavity.

Change from Fœtal Life.

After a child is born, if respiration be suspended, the opinion is almost universal, that inflating the lungs, calls them into action; therefore, it gives satisfaction, if the practitioner lay a cloth over the child's mouth a few times, and blow through it, or throw air into the lungs, by introducing a pipe into the trachea, to try the effect, but warmth applied to the chest and abdomen, by the frequent means of flannel dipped into hot water, and squeezed out, is the most effectual remedy, and often succeeds in restoring circulation apparently lost, after the failure of all other means. It should be persevered in, with the face exposed to the air: I have sometimes continued bathing nearly half an hour before respi-

ration has been visible. For this purpose, hot water is one of the articles which ought always to be ready previous to the birth; likewise, we should use moderate pressure alternately on the breast, and guard the funis, between the os externum of the parent and abdomen of the child. If circulation be suspended before breathing, it produces death upon the same principle as suffocation does after.

No ligature should be applied until the breathing life be perfect, or respiration regularly performed;

As the action of the lungs increases,

Pulsation in the navel string decreases, ceasing first at the placenta; when the whole of the circulating blood, resides in the body of the child, the funis becomes flaccid.

Application of Ligatures.

Remove the child from under the bedclothes, and after decently covering the mother, put a flannel cap on the head of the infant; when respiration is established, take two ligatures, made of several threads, so

thick that there may be no risk of cutting the funis, each sixteen inches long, knotted at their ends to prevent them from slipping through the hands. Apply the first full five inches from the abdomen, pass it once round the cord, and tie with a double knot. The second two inches nearer the navel, pass it also once round, and give a single fastening; then carefully take two more turns, and tie with a double knot; the first ligature being the furthest from the navel, prevents turgescence between them.

Division of the Funis.

Divide the navel string between the ligatures, leaving the part of the funis attached to the child, at least four inches long, which sloughs off close to the abdomen, generally between the fifth and eighth day; then a fold of singed rag should be laid on the umbilicus, and renewed occasionally, with the belly band applied over it; both which may be left off in about a fortnight, if the navel continues well.

Dressing the Child.

Every thing being at hand for dressing the child, (vide Management of Labor) it should be done immediately after the funis is divided. This operation belongs to the department of nurses, but cases frequently occur before a proper person can be procured: an Accoucheur ought to make himself acquainted with it; particularly as it is his province to instruct them.

The child must be cleansed with a sponge, soap, and warm water, and when wiped dry, a fold of rag is to be wrapped round the remaining part of the cord, and laid up towards the breast; likewise it should be rolled on with a raw-edged flannel belly-band, four inches broad, and long enough to go twice round the body; it should be pinned with three pins, immediately over the funis, sufficiently tight so as to remain smooth.

In case of considerable pressure on the head, bathe it with vinegar.

The articles of dress are to be put on as

follows:—caps, belly-band, napkin, shirt, flannel, roller, and bed-gown.

Expulsion of the Placenta.

If the after-birth do not soon follow the delivery of the child, women are solicitous for it to be brought away; but practitioners should act upon principle. An early interference therewith may be productive of evil.

Observations thereon.

First, In the former stages, the passive changes the parts undergo, and the active powers exerted for their production, are independent of the will of the patient, and equal to the end for which they were designed.

Second, If a child be expelled by the natural process, with the greatest regularity, there can be no doubt of ability in those powers for the separation and exclusion of the secundines, which are but a secondary part of the same operation; we should be convinced of the necessity of using art before we attempt to interfere.

Third, On the judicious management of this stage, recovery depends; if a small portion be separated by pulling the funis, hemorrhage ensues; or, if part be torn from the rest, and left behind adhering, it may produce

Puerperal;

Typhus; or

Hectic fever; the consequence of either, places the life of the patient in danger.

Fourth, After retention of part of the placental substance for some days, the os and cervix uteri, will be contracted and unyielding; likewise the uterus cannot act with that facility it would with the retention of the whole of it.

Fifth, The longer the child is passing through the vagina and os externum, the more regular will the contraction of the uterus be. After the birth of the former, the action of the latter recommences, to detach its surface from that of the placenta, and the action that separates, expels it.

Sixth, To ascertain its attachment, pass the index finger of the right hand up upon the the cord, whilst it is held in the left, and

if the root cannot be felt in the vagina, there is still some adhesion of it to the uterus.

Seventh, The funis may be extended occasionally to examine, till the root comes down, but not pulled tight, as a weak effort may endanger its division before the uterus is disposed to contract.

Eighth, A small quantity of blood issuing from the os externum, shews the commencement of a separation, and the recurrence of pain indicates contraction of the uterus.

Ninth, When the root can be felt by a vaginal examination, the division is complete; therefore, it will spontaneously descend into the vagina, where it should remain till excluded by the action of the contiguous parts.

Tenth, But if long passing through the latter, and the patient grows anxious, we should give some feasible cause of its retention, by intimating,

I. That we often find a strong active child born many hours, or a day or two before the time, but in such cases, never expect the expulsion of the placenta till the full period; and,

II. That the secondary action of the uterus is

suspended, waiting for a return of the patient's strength, exhausted during delivery of the child. Such suggestions may influence the woman to wait with composure. However, if her mind should be disturbed by apprehensions of danger, it will be safe and prudent

To facilitate its Expulsion.

First, Enclose the funis in a cloth, and pass it round the left hand, keeping it gently extended.

Second, Pass the two first fingers of the right hand along the cord, up the internal surface of the ossa pubes.

Third, Conduct them over the anterior edge of the placenta, and press it carefully towards the hollow of the sacrum; and

Fourth, Facilitate its expulsion gently through the vagina, and os externum. Then it should be supported on the left hand, till the membranes follow gradually; use no force, so that no part of them may be separated and left in the uterus.

Inversion of the Placenta.

During pregnancy, the ovum is formed in the uterus, with its bottom upwards (which is the placenta), and the membranes downwards, representing an oval bag; in labor, after they are ruptured, the opening forms the mouth of the bag for the passage of the waters, child, funis, root of the placenta, and its principle substance last; which, from their attachment, the latter inverts and passes through the breach of the former, whilst they are in the cavity of the uterus; therefore, instead of the placenta being the upper part, as at the commencement of labor; at the conclusion it forms the lower portion of the bag, similar to an inverted pocket.

The membranes being upwards, the volume of coagula collected in the uterine cavity, may be enveloped therein; which, by its provoking the vagina to contract, will be expelled, and the principle cause of after pains removed. This is the natural mode of expulsion.

Application to the Generative Parts.

The secundines and coagula, as soon as expelled, are to be put into a proper utensil (for the nurse to dispose of behind the fire when opportunity serves), and a dry napkin to be laid over the generative organs.

After hard labor, or any case wherein the perinæum has borne unusual pressure, it is a rule to smear a little fresh hog's lard on that side of the linen which comes in contact with the affected part.

In consequence of discharge, at the close of labor, the woman will unavoidably feel herself in a very uncomfortable state; and, as two hours at least may elapse before she can with safety be removed, we should administer that suitable relief, which the present opportunity affords, by placing under her breech, the dry end of the doubled sheet hung over the bed side. Thus

The parturient process is finished; and

The puerperal state commenced.

CHAP. II.

SECOND CLASS.

PREMATURE LABOR.

By this distinction is meant the bearing of a child, in any of the three last months of utero-gestation, or at any period wherein it may be capable of surviving, before the ninth calendar month is completed. It is consequently, a medium between natural parturition and abortion. In some cases the uterus is fully expanded, before the usual term of gestation, and then contraction commences, but in a great majority of cases, premature labor proceeds from accidental causes; as

The death of the fœtus in utero;
Evacuation of the liquor amnii;
External accidents;
Violent exertions;

Various passions of the mind;

The abuse of spirituous liquor; and

Acute diseases; as for instance, the small pox, which when it occurs during pregnancy, almost invariably proves fatal. These causes may be strengthened by such as change the natural state of the system, as plethora, irritability, &c., exciting the expulsive action of the uterus, before the cervix and os uteri have gone through their regular changes.

To prevent.

A tendency to premature labor may, in some instances, be mitigated, and even prevented when early attended to; by

Tranquillizing the mind;

Rest in a recumbent posture;

Bleeding if the pulse admit;

The administration of aperient medicines;

Cold applications to the external generative organs, and lower parts of the abdomen; and by

Attention to urgent indications.

Symptoms.

Those denoting the approach of premature labor, are

Shivering;

Diminution of the breasts;

Subsidence of the abdomen;

Cessation of the motion of the fœtus;

Suspension of the symptoms of utero-gestation; and,

Irregular pains. Experience in these cases, emboldens me most strongly to enforce the necessity of avoiding interference to facilitate the process; which, though tardy in its course, always terminates happily, (at least, independant of constitutional causes), and proceeds similar to the following description:

Stages.

The first is necessarily tedious, from the slow dilatation of the os internum and abridgment of the cervix uteri; which latter is commensurate with the distention that part of the womb undergoes.

The second and third stages are proportionately rapid, from the small size of the fœtus.

The fourth stage is generally prolix, from the disposition of the placenta and membranes to adhere to the uterus. The decidua being thicker, predisposes to hemorrhage.

The uterus is more likely to spasmodic affection during premature childbirth, than when that effect occurs at the accustomed period.

To Facilitate.

Sometimes it is necessary to bring on labor before the expiration of the full term of utero-gestation, in order to facilitate the passage of the fœtus, before it gets too large to pass through the cavity of a narrow or deformed pelvis; and this is done from a conviction, that if pregnancy be suffered to proceed till the termination of the ninth month, the act of child-bearing must not only be replete with danger to the parent, but attended with inevitable destruction to the infant.

The operation is seldom attempted, before

the conclusion of the seventh month at least; for all hopes of saving the child, till it has been in the uterus that time, will be manifestly abortive; and even then, its future life precarious.

The mode is,

First, To pass a small catheter through the os uteri;

Second, Carry it gently about eight inches up on either side of the uterus, between its internal surface and the membranes;

Third, A little pressure with the extremity of the instrument lacerates them, which will be perceived, by the liquor amnii passing off through the tube.

Fourth, Then gradually, and carefully, withdraw the instrument.

Afterwards labor may commence from the second to the fourth day, sooner or later; when the process of utero-gestation is stopped, it cannot be restored. And when the action of the uterus is brought on, it cannot be arrested by any human means till delivery is accomplished, as an evacuation of the liquor amnii, must naturally impede the former and excite the latter.

CHAP. III.

THIRD CLASS.

PROTRACTED LABOR.

PREPARATORY to parturition many alterations take place in the constitution; and some progress must be made, evident, by a change on the os uteri, before it can be considered to have commenced.

This class is constituted by,

First, The prolongation of the process beyond twenty-four hours, dating from the above stated period, with

Second, The head of the fœtus presenting.

Observations on the third Class.

First, On experience in spontaneous delivery, depends our ability to conduct those

appertaining to the other species. This includes such as are generally termed,

Lingering,

Tedious,

Laborious, or

Difficult.

But cases of real hazard and perplexity, rarely occur, unless occasioned by premature interference.

Second, It is remarked, that

A bad practitioner makes many difficulties,

A good one seldom finds any, and that

Nature knows none, although in proportion as we remove women from a state of simplicity to luxury and refinement, are the powers of the constitution impaired, rendering parturition tedious; yet the process is naturally the same now as it was when Cain and Abel came into the world; therefore, untoward or intricate cases are improbable, even should labor occur during the existence of an acute disease.

Third, Patients subject to convulsions, and under the influence of consumption, smallpox, &c., during pregnancy, are exposed to

imminent danger; although in cases of parturition, I never attended any with those complaints, who were not delivered by the efforts of the constitution, whether they lived for a length of time, or died shortly after. This observation will be illustrated by stating;

I. That constitutional debility produces relaxation of parts; whereby, the resisting powers to parturition are removed; and,

II. That uterine or general muscular action, whether proceeding from convulsions, or other morbid cause, tend to expel the contents of the uterus.

Fourth, Although protracted delivery may last many days; if interference be avoided, the patient free from constitutional disease, and managed with propriety, it may be effected by natural efforts with safety, we must submit to a degree of risk, which arises from disproportion between the head of the fœtus, and the cavity of the pelvis, whilst waiting for the efforts of the mother, and accommodating construction of the head; and though the degree of its compression in long protracted labor might be deemed hazardous to children, they

will often, under such conditions, be born safe and the parent recover more speedily than after quick ones.

Fifth, The greater number of cases considered as difficult, and which were such towards the conclusion, originated, not from the state of the patient, but from interposition by facilitating a process, which in its nature required time alone. The interference generally had recourse to, are,

I. Artificial dilatation of the os uteri;

II. Premature rupture of the membranes; and,

III. Voluntary efforts to bear down; which disturb the order of labor, and may occasion

An exhaustion of the patient's strength;

Descent of the funis below the head;

Laceration of the perinæum; or,

Rupture of a blood vessel; and if this be in the head, apoplexy is produced, if in the lungs, hæmoptoe, and the effect is different as it gives way in other parts; whereby we become necessitated to have recourse to art.

Sixth, Notwithstanding, that there is danger, in uterine operations, whether they be

Manual, or

Instrumental, is evident. The vagina and uterus, are liable to injury internally from friction alone; and we should bear in mind, that externally thereto, are situated

Anteriorly the urethra, and bladder;

Posteriorly the rectum, and contiguous parts;

Laterally the sacro sciatic ligaments; and

Inferiorly the perinæum. All which often suffer from harsh management.

Arrest and Impaction.

These are liable to occur from various causes; as,

Constitutional debility;

Interference of the attendant;

Irregularities of the patient;

Passions of the mind; or from,

Increased resistanceof parts.

Arrest

Is when,

I. The head has entered the pelvic cavity;

II. It has remained six hours in one position;

III. The pains are ineffective;

IV. The finger can pass easily round the cranium; and,

V. The scalp is not accumulated. Here the action of the uterus is arrested; but if the patient be free from other complaints, the case will allow time; and by giving,

Nutritious fluids;

Mild cordials;

Rest to the body; and,

Composure to the mind, her strength will be restored, and the uterus recover its energy.

Impaction.

When the head is so fixed in the pelvis, that it can neither be forced down by the uterus nor raised up by the Accoucheur, it is said to be impacted; this may be the effect of

I. An enlarged cranium, or

II. A diminished cavity; consequently the pressure of the child upon the soft parts of the mother, within a certain period, is likely to

occasion such inflammation as will be followed by sloughing; and at the same time, the extraordinary action of the uterus, may produce

Perinæal laceration;

Abdominal inflammation;

Suppression of urine; or,

Exhaustion of the patient's strength.

Notwithstanding, by the regular uterine efforts, much resistance may be overcome; they are more safe, both for the mother and child, than the application of artificial force.

For this reason, it is a general rule, that when no urgent symptom is present, we should learn what the uterus can do, before we attempt to assist it; and likewise, the result of a case may sometimes be influenced by

The size of the child;

The pliability of its head;

The uterine energy; and,

The progress already made. But after ascertaining what nature can, and what she cannot accomplish; or finding no more benefit likely to be obtained by delay; we are immediately to employ artificial means, especially as from continued great compression,

The integuments may tumify;

The presentation distort;

The cranial bones form an acute angle with each other; and,

The rectum, urethra, and bladder be injured, particularly if the latter be distended; therefore, we may conclude from these statements, that the safest practice consists in referring

Cases of arrest to nature; and

Those of impaction to art. By having recourse to the use of the vectis, forceps, or crotchet, as circumstances indicate.

Effects of Premature Interference.

It appears extraordinary, that often, when engaged in consultation, or sent for by an Accoucheur or Midwife, but more frequently the latter, I have found him or her seated close to the patient's breech, with one hand under her covering, and not less frequently both; if the attendant were doing nothing, or had no intention, why keep in that situation, when it brings others around her supposing it necessary to pay a near attention? Such

conduct is improper, as the manœuvres of the practitioner, and several persons waiting about a woman in pain, tend to increase heat and anxiety of mind. But supposing the attendant were doing any thing, even only examining, why keep continually doing it? as a constant friction, at least weakens, or wares the membranes thinner, consequently induces them to rupture prematurely. And the effect of irritation about the inferior generative parts, often proves the cause of material injury to the vagina, and perinæum, inducing a laceration of the last.

Much more might be adduced to guard practitioners against interfering. Notwithstanding, when labor is beyond the efforts of nature, or the latter insufficient to effect the former, assistance becomes justifiable.

State of the Fœtus.

Though our conduct is not always to be influenced by the state of the fœtus, yet we should be competent (as it is often desirable) to ascertain its life or death.

Signs of a Live Fœtus

Are,

The pregnancy continuing till the full period;

The presentation, firm and elastic;

Distinct pulsation at the fontanels, or funis of the fœtus;

Its motion distinctly felt;

It adapts itself to the positions of the mother; and,

The breasts of the latter are well supported.

Marks of a Dead Fœtus

Are,

A want of motion in itself;

No pulsation at its fontanels;

It inclines to the side the patient lies on;

Rigors of the woman;

A sense of coldness in the abdomen;

Recession of the milk;

Flaccidity of the breasts;

The mother is more sensible of the weight of the fœtus.

The membranes rupturing early;

Corrupted waters are discharged;

Fetor in the apartment, and about the bed;

Meconium discharged, although a natural presentation, from relaxation of the sphincter ani;

The sutures loose and distinct;

Separation of the cuticle;

Emphysèma, &c.

Cause of the Death of the Fœtus

May be,

Sudden fear, or affections of the mind;

Obstructed circulation of blood in the funis;

External accidents;

Premature discharge of the liquor amnii; (This will be illustrated by supposing a substance, suspended in a bladder of water, which may be pressed or tossed about without injury; but, when the water is let out, such usage will be injurious.)

Strong and lasting labor pains;

Undue interference during the process;

Abuse of spirituous liquor;

An acute disease.

Impediments to Delivery

Are, either imperfect action of the uterus, or resistance made thereto, when duly exerted. To regulate that action, and facilitate beneficial effects, we should attend to observations stated under this, and the three following heads:

First, Natural impediments (these are noticed in comparative parturition);

Second, Rigidity of the membranes; but this cannot be a cause of resistance, till the mouth of the womb is fully dilated;

Third, Shortness of the funis;

Fourth, Corpulency of the patient;

Fifth, Constitutional, or uterine debility;

Sixth, Passions of the mind;

Seventh, Spirituous liquor;

Eighth, Distention of the womb (like the bladder, when over distended, loses it's power of contraction);

Ninth, A first pregnancy;

Tenth, Advancement in age;

Eleventh, A full bladder;

Twelfth, Rigidity of the os externum and os internum;

Thirteenth, Disproportion between the pelvis of the mother and head of the fœtus; from deformity or diminution in the cavity of the former; or from disease or ossification of the latter;

Fourteenth, Rigidity of the os coccygis;

Fifteenth, The mal-position of the head; and,

Sixteenth, The artificial dilatation of the os uteri: the latter is most important; therefore, a judicious practitioner guards against it.

Rupturing the Membranes.

Such female practitioners as are unacquainted with the tendency of their premature rupture, often break them with a view of hastening delivery. It may, in some cases, accelerate the process if done when

The os uteri is fully dilated;

The head descended into the cavity of the pelvis; and,

The outlet of the latter sufficiently capacious,

notwithstanding we should recollect, that labor, protracted from such natural causes, coincides with the safety of the patient; and as this operation is admissible only in one case, namely, a dangerous hemorrhage, it is necessary to state its impropriety in others.

Ill Effects.

The consequence of an early discharge of the waters, may be,

First, The funis passing therewith, and emerging below the head ;

Second, The protraction of labor, by bringing the solid, and unaccommodating head of the fœtus, in contact with the os uteri, instead of that soft complient medium, the membranes containing the waters provided by nature for preventing violence on those tender parts ;

Third, An increased violence of the pains ; and,

Fourth, Rupture of the uterus, it being brought in immediate contact with the limbs of the fœtus, especially if its extraordinary action commences ;

Mal-Position of the Head.

During parturition, practitioners are generally satisfied when they discriminate the head; but it is necessary to identify its precise situation; therefore, we ought to be apprised early of the rupture of the membranes: should that event take place, and any malposition of the head be observed during the first stage, it may be easily remedied.

Face to the Pubes.

When the face inclines forwards,

First, Ascertain the anterior fontanel;

Second, Distinguish the ear, and on which side its cartilage is situated, as by them we learn the direction of the occiput;

Third, Elevate the breech of the patient higher than a level with her head;

Fourth, Raise the head of the fœtus a little;

Fifth, Place two fingers on the depending temple, so as to guide the face round by the shortest route towards the sacrum, which takes its natural position when aided by succeeding pains.

Ear Presentation.

By this we mean, when the ear is in the centre of the pelvis, and the sides of the head lying on the sides of the pelvis, the summit of the cranium may be situated to the fore or back part of the pelvis. To afford relief in this case.

First, Find the ear ;

Second, Apply the vectis over the opposite side of the head ;

Third, A small degree of extracting force, readily converts it to a vertex presentation ;

Fourth, And carefully withdraw the instrument.

Arm with the Head.

If an arm emerges with the head,

First, Observe the situation of the latter ;

Second, Ascertain if the palm of the hand be flat on, or directed towards the head ;

Third, If it be not twisted ;

Fourth, Raise the breech of the patient higher than a level with her head ;

Fifth, Press the hand of the fœtus towards its little finger, or guide the arm in the direction of the forehead; and,

Sixth, Continue the pressure to get it to the face, where it cannot impede delivery.

Face Presenting.

By this we mean the face entering the cavity with the nose in the centre of the pelvis; it consists of three varieties:

First, The chin to the pubes;
Second, Ischium; or,
Third, Sacrum.

The presentation is readily known by the Projection of the nose;

Depression of the eyes; and,

Fissure of the mouth. In its gravitation it must be considered in the way as the vertex; the same principle being applicable to both with respect to the long and short axis of the head and pelvis; consequently, the chin will incline forwards according to its descent. This is as essential as the turn of the occiput forwards. The more time there is employed, with the more safety will the process be

ended. When the chin is situated at one side of the pelvis, the object is to incline it to the pubes. All such cases as have come under my observation, during a long experience, when submitted to constitutional efforts terminated happily. The face of the child is generally much disfigured on delivery, but this disappears in a short time. Should circumstances require speedy delivery, the forceps may be had recourse to: here their application requires very great care.

In these cases particular caution is necessary to avoid injuring the eyes of the fœtus during examination; therefore, the rules of practice are,

First, That the finger be always carefully introduced; and,

Second, Tenderly applied, until the position be accurately known.

Observations on Mal-Position.

All cases of deviation from the standard presentation, when the head is large, its sutures ossified, and it has entered the pelvic cavity; parturition will be completed by the

natural efforts of the mother, unless interrupted by constitutional maladies, original defects, or artificial difficulties : however, we may have a prospect of affording relief, by

First, Time and encouragement to hope for a safe delivery ;

Second, Regulating the patient's conduct ; and,

Third, Promoting the natural effect of pains, but after waiting a reasonable time, and no change appears likely to take place, we are to have recourse to manual or instrumental aid, as circumstances indicate. The intention of artificial assistance, is to supply the want of labor pains, to save the life of the mother, child, or both ; but the necessity for using it must be decided by circumstances of the mother.

On Instruments.

Instrumental aid, in the practice of midwifery, is seldom necessary, when the resources of the constitution uninterrupted employ their influence ; and it is observed that their use ought not to be allowed unnecessarily, nor

without consultation, and mature deliberation;

The probable mistakes;

The want of experience; and sometimes,

The unavoidable mischief happening in consequence, ought to impress us with a sense of the propriety of these observations.

In the present obstetric practice, how few are the instruments employed in comparison of those used by the ancients! how simple their construction, and how seldom is recourse had to them! Notwithstanding their assistance should be afforded, if the efforts of the parent or manual help prove unequal to the expulsion of the fœtus; wherein three things are to be considered;

First, To make a distinction of cases manageable with, or that allows of such help;

Second, To discriminate such as require their assistance; and,

Third, The manner in which they should be employed

DESCRIPTION OF INSTRUMENTS.

THE following is an outline of such as are in present use.

The Forceps

Are composed of two equal parts, each having a curved blade and straight handle, so formed that when applied separately upon the head, they may be locked together, and used as two conjoined levers, for the purpose of extracting it.

Two kinds of forceps are referred to, one with a lateral curve, denominated the double curved; the other, (plate I. fig. 1.) without called the single curved; which are in general use. The handles, (*a*) are four inches and a half long. The blades, (*b*) from their extremity to the former, are about six inches and a half, making together eleven inches. The broadest part of the blade, is an inch and a half: a depression is formed on the handles, opposite each other for the purpose of tying them together when necessary.

1.

Fig. I.

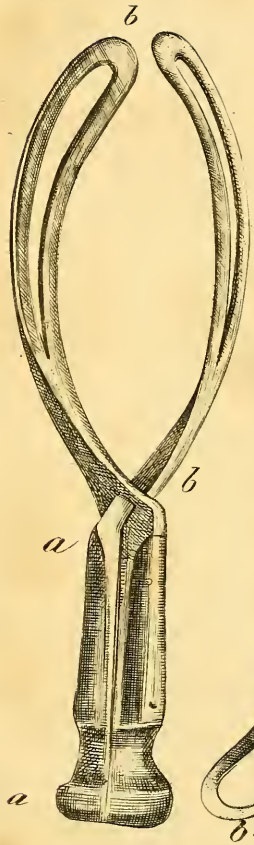


Fig. II

Plate II.

Fig. III.

Fig. I.

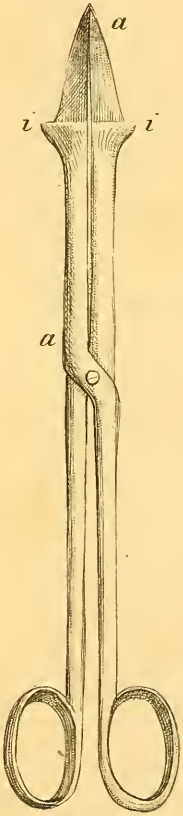
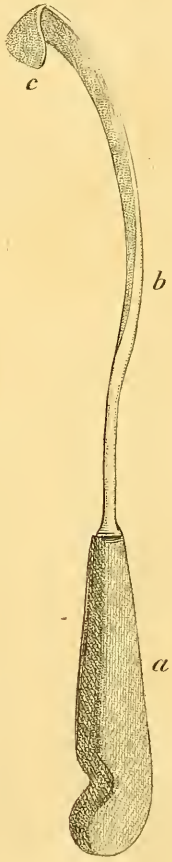


Fig. II.



The solid Vectis

The solid vectis (fig. II.) is similar to a single blade of the forceps, with the exception of the blade (*b*), being half an inch more in length, one fourth of an inch in breadth; somewhat more curved near its extremity, and without the lateral curve; some have a hinge between the handle (*a*) and blade; others have the handle to screw on, but the solid vectis is preferred.

The Perforator.

The perforator, (plate II. fig. I.), is in the form of scissors, and about ten inches long; the blades (*a*), from their points to the stops (*i*), situated at an inch and a quarter distant, are somewhat curved, and without any cutting edge.

The Crotchet.

This instrument, (fig. II.), the body of it (*b*) is seven inches long, and the greater part of it curved. The handle (*a*), is four inches

and a half, the end *(c)* is flat, and about three-fourths of an inch broad in the centre: the point is turned inwards.

The Blunt Hook,

(Fig. III.) is straight and of a similar length with the former instrument. The handle *(a)* is in the same form; the hook *(b)* is round, without any particular shape.

Instrumental Cases,

Marked by inefficacy of the natural efforts, a feeble pulse, and an exhausted appearance of the patient. For their success, patience, perseverance, and a steady hand are necessary.

Three circumstances are essential in every instrumental labor,

The preparation for it;

The application of the instrument; and,

The extraction. The preparation consists in,

First, Being satisfied that the state of labor is proper for the application of the particular instrument we are to employ; and without

this, we should not be tempted to it from impatience on our own part, or that of the patient;

Second, Removing every obstruction by evacuating the contents of the bladder and rectum; and,

Third, In adjusting the position most favourable for delivery.

Cases Manageable with the Forceps.

Labors may be conducted with facility by the forceps, when

First, The os uteri is fully dilated;

Second, The head is within the pelvic cavity; and,

Third, An ear can be felt by a vaginal examination: in the latter case, the blades of the forceps being twice the length of the finger, will embrace the head.

Cases requiring the Forceps.

They are to be had recourse to, when

First, The pains have ceased;

Second, The head of the fœtus has rested six hours on the perinæum.

Third, The patient appears to be worn out, with fatigue; and when,

Fourth, Her pulse and countenance indicate extreme debility.

Previous Deliberation.

When we have determined on the propriety of using the forceps, we should examine a second or third time before doing it, to be the better confirmed in our opinion; proceed slowly, but not timidly in their application. The difficulty either in applying or using them, is less than that of deciding upon a proper case and time when to do it.

The lower the head has descended,

The longer the use of the forceps is deferred, and

The slower proceeded with, the easier will their application be;

The success of the operation more certain; and

The hazard of doing mischief less. Which

latter often occurs by applying them too early or in a hurry.

Before the application of any instrument, we should explain our reasons for it.

Rules for applying the Forceps.

First, Ascertain the situation of the head, by finding the posterior fontanel and sagittal suture, they give the direction of the occiput; or by feeling the ear, which has a projecting part towards the occiput, and a flat one towards the face; whereby we become acquainted with the relative disposition of the different parts of the head.

Second, Place the patient's breech close to the right side, or foot of the bed, with her knees drawn up, that during the introduction of the upper blade there may be sufficient room to depress its handle over the bedstead.

Third, Before their introduction, a gentle or easy dilatation of the external parts, will be sufficient. Finding, in cases of natural labor, attended by midwifes, who are fond of dilating; instead of more space being gained from the dilatation, the parts become rather more con-

tracted, and occasion greater efforts from the propelling power to overcome the morbid contractility and inflamed state they hereby acquire.)

Fourth, The forceps are to be emersed in hot water, wiped dry, and smeared with hog's lard.

Fifth, They are to be applied over the ears of the fœtus; therefore, the direction of the blades must be determined by their situation.

Sixth, direct the index finger of the right hand to the upper ear.

Seventh, Take a blade in the left hand, and conduct it between the head of the fœtus and the above finger.

Eighth, When its extremity is over the ear, it should be kept close to the head, as the instrument advances, by raising the handle.

Ninth, Proceed till the lock reaches the external parts, and then it is to be held steadily by an assistant in its situation, for a guide to the introduction of the second blade.

Tenth, Conduct it cautiously upon the index finger of the left hand, opposite the first blade.

Eleventh, Guard against applying them in

a wrong direction, or inclosing the soft parts of the mother, between the blades and the head.

Twelfth, Take care when locking the handles, that nothing entangles therein, by passing the finger round.

Thirteenth. We should avoid tying them, unless resistance be considerable.

Operation of the Forceps.

First, Begin with a small degree of extracting force, giving time therewith; and on being assured of its insufficiency, use more exertion during pains, (if any) or at intervals in imitation thereof, calling to mind that the head of a fœtus will not admit of continual pressure.

Second. From time to time pass the finger round, to be satisfied that the instrument encompasses the whole of the head.

Third, Though the handles of the forceps were originally placed far back towards the sacrum, in the direction of the superior cavity, yet as the head descends, they gradually incline to the pubes.

Fourth, The action must be from handle to handle, with a moderate, or if the case requires, an increased degree of extracting force, in a line with the axis of the upper cavity, till the head be perceived descending, and the occiput is easily felt, inclining towards the pubes.

Fifth, In the latter state, the force of action must be abated, and made in the direction of the axis of the vagina.

Sixth, The lower the head descends the more gentle we must proceed.

Seventh, If the handles of the forceps were tied during the operation, it is necessary to loosen them ere the head passes through the os externum, that during its passage, the blades may be flattened thereon, to prevent injuring the latter.

Cases manageable with the Vectis.

First, This instrument can be employed before the presentation is so low as to be eligible for the application of the forceps, but not before part of the head is within the cavity.

Second, When the head is low down, the occiput turned forwards, and it has been long in that situation, the pains trifling, and the soft parts lax, then much power will not be required; therefore, the lever is preferable.

Third, When an ear or side of the head presents, by passing the instrument to the upper side.

Fourth, In some face positions; and,

Fifth, In the extraction of the head, when separated from the body, if the former be left in the pelvic cavity.

Application of the Vectis.

When this instrument is used,

First, The patient must be placed in the same situation, as when the forceps are employed;

Second, Pass the right index finger to the ear;

Third, Introduce the vectis between the finger, and head of the fœtus;

Fourth, Conduct it forwards till the point of the instrument reaches the ear; and,

Fifth, Proceed in the same direction till its

extremity is high enough to have a firm hold by hitching the chin in the finistra of the instrument, whereby the line of pressure is from the latter, over the ear, towards the vertex; which is the most advantageous position.

Operation with the Vectis.

This name rather serves to give a wrong idea of the use of the instrument; to use it as a lever would do a great deal of mischief; inflammation, mortification, and sloughing may be the consequence; and therefore, it is used more under the idea of a hook.

First, On the return of a pain, take the handle of the instrument in the right hand, and raise it towards the pubes.

Second, Exert a degree of extracting force, in a line with the axis of the upper cavity.

Third, When the pain ceases, the instrument must rest.

Fourth, The left hand is to act as a cushion, to guard the soft parts of the mother.

Fifth, By repeating this action, the head will soon be perceived to descend, the face

turn gradually towards the sacrum, and the handle of the instrument incline to the ischiæ.

Sixth, When the vertex begins to protrude, artificial assistance must be abated, or cease.

With respect to the forceps and vectis, it is allowed, that circumstance occur in practice where either of those instruments may be used; notwithstanding, when cases happen that are eligible to both, I decidedly prefer the former

The obstacles to delivery may, in some cases, exist at only one part, but in others it is more general, or through the whole cavity of the pelvis.

It is requisite for every student to see the instruments applied; but to use them dexterously cannot be taught, being instructed in the true principles of application, their management will be acquired by habit.

Diminution of the Head.

Having formed rules to use the forceps and vectis, for the preservation of the fœtus, I shall mention an operation more important,

namely, that of lessening the head of the child to save the mother, afflicted with a deformed or narrow pelvis. In some cases it may be impossible to save both, when the life of the fœtus invariably yields to that of the mother. But this operation is so seldom necessary, that an experienced practitioner delivered upwards of three thousand children, without having occasion to lessen the head of any.

Of the life or death of the fœtus, we have often reason to doubt, when called upon to decide or to act; yet it is incumbent on us, and we feel ourselves justified in treating the infant as if actually dead, in some cases, to secure the safety of the mother; that one life may be saved, where two cannot. Our opinion in favor of the operation will be guided by,

First, The inability of the parent to expel the fœtus;

Second, The impossibility of extracting it by other means; and,

Third, The danger of the former from delay. But whatever be our motive for performing the operation, the fœtal head ought not to be lessened on the decision of one per-

son, however well informed, unless two or more cannot be procured.

On this account, it has been a humane custom with Accoucheurs, to attend gratuitously with each other, on patients of inferior circumstances.

The Perforator and Crotchet.

These act on a different principle from the former instruments, by diminishing the size of the head, in order that it be either afterwards expelled by the natural efforts, or (where those are not to be waited for) extracted by art; therefore, the process consists of two parts,

I. Diminution, and

II. Extraction.

The position of the patient, for this mode of delivery, should be the same as was directed for using the forceps.

First, The more calm and slow we proceed, the less risk will there be of failure or mischief.

Second, The vertex and posterior fontanel are advantageous places for the operation;

but, if by circumstances they are rendered impracticable, we must take the part that is most accessible.

Third, Introduce the left hand into the vagina, with the index finger upon the part intended to be perforated.

Fourth, The operator is to hold the instrument in his right hand, and carefully conduct it with its convexity, towards the palm of the left, keeping the point close to the finger.

Fifth, Pass the perforator through the scalp.

Sixth, Perforate the cranium with a semi-rotatory motion.

Seventh, Press the instrument forwards, till the stops come in contact with the bones.

Eighth, Continue the operation with the same gradual motion, for the stops to pass through the aperture, till the joints reach that part.

Ninth, Separate and close the handles several times in different directions, to break down the contents of the cranium, and make a large crucial opening for their escape.

Tenth, Close, and carefully withdraw the instrument.

The perforation can be performed with ease, even by an inexperienced practitioner; but, as extraction is more likely to be attended with risk to the patient, if commenced immediately after lessening the head, it is the rule of practice (unless untoward circumstances require speed) for twelve hours to elapse between the two operations. When

The cerebrum has passed off;

The head undergone diminution of bulk by compression; and,

Descended into the pelvic cavity, it may be safely extracted or expelled.

Eleventh, When its extraction is requisite, remove all irregular shaped pieces of bone.

Twelfth, Before we employ other instrumental assistance, it is proper to introduce the right index finger into the opening, in the form of a hook, to pull at intervals during the action of the uterus; but, should

The head be high;

The pelvis much distorted; or,

The finger prove unequal for the purpose; the crotchet is to be introduced with the right hand, and guided by the left into the aperture.

Thirteenth, Fix the point as distant from

the edge of the bone as the curvature of the instrument will allow.

Fourteenth, Pull moderately in the direction of the upper cavity.

Fifteenth, As the crotchet may give way, the hand must be kept in the pelvis, both to assist the extraction, and to prevent injuring the soft parts of the mother.

Sixteenth, If it be firmly fixed, and the head too much impacted to be easily brought down; suppose the force required to extract it be equal to ten, and the strength which can be taken with safety not to exceed five, and no purpose can be answered by exceeding it, except removing the part on which the instrument is fixed; by continuing the purchase regular, an adequate increase of time, will at length be sufficient to overcome the resistance of the remaining five; as

Time is equal to power.

Seventeenth, If resistance be great, we should not act hastily, nor with violence; therefore, after making due force for a considerable time without success, desist a while and renew the attempt.

Eighteenth, After the head is extracted,

should any difficulty remain with the thorax, the crotchet may be easily applied to any part thereof.

These cases may be managed with facility, if steadiness be observed.

Gentlemen commencing practice, are generally anxious for using instruments; but when arrived at maturity in the profession, they endeavour to avoid them.

CHAP. IV.

FOURTH CLASS.

PRETERNATURAL LABOR

Is, when any part of a fœtus presents, except the head, it may be conjectured, if

The presentation is more distant and longer before it can be ascertained;

The dilatation of the os uteri is protracted;

The membranes protrude in an elongated form like a gut; and,

The woman is sensible the pains are not advancing her delivery. Preternatural labor is formed into two divisions:

The First

Consists in presentation of the breech, or inferior extremities.

The Breech

Is known by the
Soft fleshy feel;
Tuberosity of the ischium;
Sulcus from one thigh to the other;
Cleft between the nates;
Discharge of meconium;
Parts of generation; and the
Anus being in the centre of the pelvis. But the child may be in different situations with respect to the mother.

First, Its thighs to the sacrum;
Second, ilium; or,
Third, pubes. The fœtus that will pass with moderate exertion in the first case, will be very tedious in the third, owing to the mechanism of the child and pelvis not coinciding.

This division is formed into four stages; in the

First, The breech, or inferior extremities descend into the cavity of the pelvis.

Second, They protrude through the os externum.

Third. The body, shoulders, and head are delivered.

Fourth, The placenta and membranes are expelled.

The delivery of a breech case is safe with respect to the mother, but hazardous to the child; depending principally upon the mode; yet, on an average, if the process be effected by the efforts of the constitution, three out of four may be born alive; but, if by the interference of art, the former number is likely to be born dead.

A Breech Case.

Mechanical turns, guided by the form of the pelvic cavity, in spontaneous delivery, wherein the breech enters the pelvis with the thighs towards the sacrum, and one tuberosity below the other. The lowest one follows the same turns as the vertex does in natural labor, and observes the same relation to the axis of the brim and outlet of the pelvis; as it is expelled with one to the symphysis and the other to the coccyx; after the presenting tuberosity descends under the arch, the other

clears the perinæum, like the face in natural labor; whilst the breech protrudes, turning a little round, the shoulders pass the brim diagonally; the descent continuing till the legs clear the vagina; when this is taking place, the head is passing the brim obliquely, with the face to the sacro-iliac junction; the arms with it laid over the ears; whilst the cranium descends to the lower part of the cavity, the shoulders pass the outlet, with one to the pubes, and the other to the coccyx; afterwards the forehead turns to the hollow of the sacrum; next, the chin resting upon the breast, clears the perinæum, which slips over the face, and the vertex comes last, from under the pubes.

Management.

During the progress of the breech, when we are convinced by the

Suspension of pains;

Imperceptability of pulse; and,

Change of countenance, that the powers of nature are insufficient to expel the fœtus, we are to assist.

First, The blunt hook was invented principally for the purpose of passing it over one of the thighs, when there was any difficulty in the expulsion of the breech; but, recollecting that as iron is harder than bone, it may dislocate or fracture the os femoris. Therefore, it is proper, more especially if the child be living, to apply the finger in the form of a hook over the bent part of the fœtus, at the groins, first one and then the other; or if that is ineffectual, the corner of a handkerchief, which should be increased until its middle is drawn upon those parts; then pull gently by the ends, at intervals, in imitation of pains; draw chiefly by the part that is nearest the sacrum, because the depth is here three times as much as in the front.

Second, All presentations of the first division must remain, unless constitutional causes intervene, it being an established rule for the breech, especially with the inferior extremities, turned up upon the sides of the abdomen, to be expelled by the natural efforts; whereby the funis lying between them is protected, and the parts so amply distended, that when the head is received into, it readily passes through

the pelvic cavity, which latter is the time of danger, by compression of the funis, between the fœtal head and pelvic bones.

Third, When the breech begins to protrude the external parts, we should attend to its position with regard to the mother. There are two situations requiring our attention, because the rest are ultimately reduced to these:

I. When the thighs of the child are directed to the sacro-iliac junction of the pelvis; and,

II. When they are directed towards the acetabulum. In either of these cases the fœtus would easily descend till it comes to the head, but the latter could not pass or its situation be changed without some difficulty, if the face were towards the pubes of the mother; therefore, as soon a the breech is expelled, the practitioner should, whilst the body is passing, give such an inclination to it, that the hind part may be brought towards the pubes.

Fourth, If the arms are turned up upon the head, it may protract the expulsion of the latter, but the former, being natural protectors of the funis, render the process safe.

Fifth, If the axis of the head does not correspond with that of the pelvis,

Put one finger of the left hand into the mouth; and,

With two fingers of the right, take hold of the occiput, and then turn the head. This is a matter of moment.

Sixth, If it should be judged necessary to fetch down the upper extremities, we should wait till the axilla is even with the external parts, then carry the finger over the shoulder to the bend of the elbow, at the same time incline the child to the other side, and its hand towards the face to be brought close along the breast, and it comes out on the opposite side, after bringing one, incline the body towards it, and then reach the other. This operation must be gently effected, as great caution is required to avoid a fracture, or dislocation.

Seventh, If the circulation be in danger, which is rare whilst the arms are turned up, we are to bring them down, and introduce the two foremost fingers of the left hand within the perinæum, and place them with a degree of firmness on the maxilla superior, to

Take off the projection of the occiput;

Press the chin on the chest;

Uncover the nose and mouth; and,

Open their way to the os externum; whereby, if the child breathes, it will be safe, and we authorized to give time for the expulsion of the head.

Eighth, Should the circulation in the funis become feeble, or convulsive jerks of the body take place before respiration commences, we must extract the head. An assistant is to guide the body on his right hand, with its back towards the pubes of the mother, in the vaginal direction, and his left hand spread on the breast, his thumb in the axilla, and a finger over each shoulder; using moderate extracting force, during pressure of the operator's fingers on the upper jaw.

Footling Case.

Presentations of the feet are known,

First, By there being no rounded tumor, formed with the lower part of the uterus.

Second, After dilatation of the os uteri,

the membranes protrude more elongated than when the head or breech presents;

Third, When the presenting part is touched through the membranes, during the remission of pain, it is felt to be small, and affords no resistance to the finger; and,

Fourth, When the membranes are ruptured, we may distinguish a foot by the

Length of it;
Heel;
Ankle;
Shortness of the toes; and the
Want of a thumb.

Presentation of the Interior Extremities.

When the feet or knees present, their progress requires great deliberation; and bringing them down, independent of constitutional causes, merit the highest disapprobation; it reducing the fœtus into a conical form, wherein, difficulty of the labor, and danger of the child increase as it advances. Therefore, our treatment must depend on circumstances; if pains are regular, though moderate, delivery will be effected thereby; however, if

They do diminish, which is rare;
The pulse get feeble; and,
The countenance of the patient indicate debility; enfold the feet in a napkin, and gently slide them down at intervals, in imitation of pains; the rest of the operation must be very deliberately conducted. (*Vide* management of a breech case.)

SECOND DIVISION OF PRETERNATURAL LABOR

Consists in presentations of the shoulder or superior extremities.

A Shoulder

Is known by the,
Scapula behind it;
Costæ;
Joint; and
Humerus.

A Hand

Is distinguished by,

Its flatness;

The length of the fingers; and,

The thumb not being in a line with the rest.

The Presentation

May be readily discovered by examining in an interval of ease.

First, The pains are frequent but ineffective before the waters are discharged;

Second, The membranes are found in a long form; and,

Third, The length of the fingers evident.

Observations

Previous to turning,

First, A standard child can only pass through the pelvis in three positions, the

Head;

Breech; and

Feet; therefore, all others require to be

changed, and are properly termed manual labor.

Second, The bladder and rectum should be emptied.

Third, An upper extremity should be returned as soon after the discharge of the waters, as the os uteri is dilated sufficient to admit the hand up to the knuckles; the longer we wait afterwards, the greater will the difficuly of turning be.

Fourth, But we should be careful not to rupture the membranes prematurely; and the more effectually to preserve them entire, should prevent exertion or much motion on the part of the mother, in order to facilitate a spontaneous evolution. From much attention paid to this process, I have frequently observed a favourable change of position take place, and sometimes a complete breech presentation effected, against the discharge of the waters. But, unfortunately, circumstances often induce the latter to escape early.

Fifth, Whilst the membranes are whole, whatever be the position, the fœtus is in no danger, and a natural dilatation is on every occasion, preferable to an artificial one.

Dilatation of the Os Uteri.

Although it is very seldom proper to effect this operation artificially; yet if it should be judged expedient, from concurring circumstances of the patient, it may be commenced; but not till the first part of its opening is previously effected by nature. *Vide* vol. I. p. 140.

The mode is,

First, To pass the fingers, first one and then another, till the whole are admitted into the os uteri in a conical form; and,

Second, To use a very gentle semi-rotatory motion till the hand can pass.

There are various positions of the fœtus, which require turning. It has been recommended in presentations of the head, in case of,

First, Hemorrhage without pain;

Second, Descent of the funis below the head; (but in this a safer mode is now adopted;)

Third, Convulsions, if the head be not within the reach of the lever: but it should be remembered, that when we speak of turning

in a natural presentation, we always suppose the head to be on the brim of the pelvis, and quite loose.

When turning is recommended in a presentation of the superior extremities

The child is supposed to be alive;

The mother in health; and,

A sufficiency of room. We will observe on each of these.

I. The child is supposed to be alive, if we turn with a view of benefiting the fœtus, otherwise it is giving pain to the mother, without any good arising from it.

II. The mother in health. If she be labouring under disease, so that turning would be attended with danger, it should not be done without a consultation.

III. A sufficiency of room. There must be room in the uterus, as well as in the pelvis.

The want of room is most likely, when the waters have been long discharged; therefore, it is a rule to ascertain the presentation, whenever we know the membranes are ruptured; and if we turn soon afterwards, it will be done comparatively with little force.

Suppose the os uteri is naturally dilated,

before the membranes rupture, and circumstances of the mother require promptitude.

The most complete way of taking advantage of the proper time for turning, is to pass through the bag, and carry up the hand, so that the back of it grazes against the inner side of the membranes. But when the waters have been long discharge, the uterus contracted, and the case requires speed; an artificial relaxation must be induced, by giving a large opiate, and delivery promoted when the atonic state of that organ commences.

Situation of the Fœtus.

When it is known that an arm presents, a practitioner ought to find out the particular position of the fœtus, and situation of its feet; for which there are several rules.

First, If we carry our hand along the inner side of the arm, it will lead to the breast, neck, and head; along the outer side, to the scapula and back.

Second, In most cases the feet are found in the forepart of the uterus, towards the navel of the mother. But their situation may be better known by examining the presentation;

when we ascertain the shoulder, we know, that if the scapula be felt at the sacrum, the feet will be towards the belly.

Third, If the arm be in the vagina, or a hand protrude through the os externum, the palm will be directed towards the inferior extremities; but,

Fourth, We should identify which hand presents. If we examine with the right hand, we shall find, that if the palm of the child's hand be taken into ours in a state of pronation, the thumb of the right, or little finger of the left, will correspond to our thumb.

By these rules, we may form an idea which of our hands, will be most convenient for us to use, and where to carry it up. If the feet of the child be towards the abdomen of the mother, the right hand will have the advantage; but if they are towards her back, the left will be more convenient.

The Art of Turning.

The difficulties that occur in this operation depend on,

I. The degree of contraction in the uterus;

II. The distance of the feet from the uterine orifice; or,

III. The presence of pains, opposing the introduction of the hand.

First, The position of the patient is usually the same as in natural labor, but it should be such as allows the free use of our hands.

Second, Neither bladder nor rectum should be distended at the time of turning.

Third, The os externum should be tenderly dilated with the fingers of the right hand, previously anointed with fresh hog's lard, and reduced into a conical form, acting with a semi-rotatory motion, taking considerable time, (in this case much attention is necessary, in order to effect a complete dilatation,) that the subsequent part of the operation may not be impeded.

Fourth, The hand should rest a little, after it has passed into the vagina.

Fifth, During the introduction, gently raise the presentation, which facilitates turning.

Sixth, If the action of the uterus occurs, the hand must remain passive till the pain subsides.

Seventh, Pass between the pubes of the patient and body of the fœtus, along its sides, thighs, and legs, to come to the feet.

Eighth, It is so necessary to recollect the description of a hand and foot, that mistaking the former for the latter, complicates or increases the difficulty.

Ninth, The operation of passing the hand into the uterus, is on every occasion to be performed with deliberation, that the head may have time to direct it.

Tenth, When we have obtained one foot, or both feet, either in the hand or between the fingers, guide them slowly down the belly of the fœtus; which commonly turns without difficulty.

Eleventh, When the feet are brought into the cavity of the pelvis, rest with them in the hand, till the uterus begins to contract; then bring them lower at each pain, and so direct the body of the fœtus that its face shall verge towards the hollow of the sacrum.

Twelfth, With a contracted uterus, or large fœtus, turning may take too much time and strength for the operator's hand to keep the feet, till they are brought through the vagina;

to facilitate which, a noose of fine list, or narrow slip of chamois leather, may be conveniently fixed, by an assistant, round the ankles; first forming it over our wrist, then sliding it over the hand containing the feet.

Thirteenth, The noose, being fixed about both ankles, (or if it incloses only one, will keep that till the other is brought down); extend it, and the hand introduced is then to be passed to the presenting part, pushing it up towards the fundus: so allowing time, the fœtal evolution will be safely effected; and by continuing the extention of the noose, aided by the action of the uterus, the extremities will be brought through the os externum. But in case of much difficulty in this part of the operation, we may pull the noose with one hand, whilst the other takes hold of the feet, by which they will soon be extracted forming a footling case.

Uterine Action.

The action of the uterus consists of three kinds:

First, Its permanent diminution is the

consequence of an inherent disposition to recover its primitive size, when any cause of distension is removed.

Second, The spasmodic efforts of the whole, or any part of it, from morbid affection, and which are generally unfavourable to the expulsion of its contents.

Third, Its extraordinary contraction is productive of strong periodical pains, by which the uterine contents may ultimately be expelled.

Effects.

First, When the waters have been long discharged, two causes of difficulty appear;

Wrong position of the fœtus; and

Contraction of the uterus. The space of time necessary for turning, depends on the degree of permanent contraction; (*vide* Art of Turning).

Second, Turning with spasmodic affection; depends on insinuating the hand by gradual perseverance, to diminish the spasm, and proceed similar to the former.

Third, To operate during extraordinary

action is to urge against nature, especially with an acute projected sacrum, as its consequence may be a ruptured uterus; therefore, the hand should never be introduced whilst that affection continues; and if the latter occurs after an introduction of the former, it should not act, but be depressed on the fœtus, and remain passive or removed, there being no hopes of saving the fœtus by turning when that operation is effected with violence.

Spontaneous Evolution.

When the waters have been long discharged, and the uterus contracted, with an arm descended into the vagina, Dr. Denman's practice points out the utility of passing the finger and thumb in the form of a crutch, into the axilla of the fœtus, in order to raise the body towards the upper part of the uterus, to allow of the introduction of the hand; but we are seldom consulted till the uterus is too firmly contracted, or the pains may be too strong for that operation to become practicable.

As turning cannot be effected without con-

siderable violence, and as any interposition tends, not only to defeat the natural efforts, but are in danger of rupturing the uterus, we should wait the event, or probability of a spontaneous evolution, which may take place, and delivery be effected with safety to the mother; it being acknowledged by the majority of experienced practitioners, that if no disease were co-existing, the fœtus may evolve upon its own axis to facilitate its passage, and come into the world by a breech presentation.

Facility.

Of this operation, or the space of time it may take, depends on

The size of the child;

The aptitude of its position;

The dimensions of the pelvis; and,

The exertion of uterine power; but should the latter prove insufficient, and, in consequence, the evolution would not be effected; yet there is some consolation, that by a continuation of pain, as the fundus uteri acts immediately upon the inferior extremities,

pressing the feet gradually lower, they become more accessible; and when pains subside the uterus may be acted upon. The process must be effected by an uninterrupted action of the uterus. I have experienced many cases of this kind, wherein the child has been expelled without any assistance, and sometimes born alive.

This grand effect of uterine power, is now universally acceded to; for which, with the clear principles, and general improvement of the science, we are much indebted to the late enlightened professor, Doctor Denman.

Impacted Shoulder.

In consequence of inexperience of young practitioners, in these cases, and in the operation of turning, we are frequently called in consultation; where,

First, The arm is descended low down, or the shoulder immoveably jammed in the upper cavity of the pelvis.

Second, The pains subsided.

Third, The uterus contracted, firmly embracing the fœtus in every direction; and,

Fourth, The woman in a state of exhaustion. This case admits of no alternative, but to perform the operation of

Embryotomy.

First, Remove the presenting arm, at the articulation with the scapula; let an assistant draw it down, first with the blunt hook, afterwards with his hand, and then nip it off: likewise get the other arm away by the same means.

Second, Open the thoracic and abdominal cavities, with the perforator.

Third, Remove their contents with the crotchet or blunt hook, to make room for the introduction of the hand. Sometimes uncommon difficulties occur in these cases: here the force necessary to surmount the obstacles, should be tempered with prudence, and slight force be used where it is practicable, in preference to great.

Fourth, Bring down the breech, feet, or either of the latter; and,

Fifth, Complete the process as in breech presentations.

Various Preternatural Presentations.

In presentations of the
Belly;
Funis;
Side; or
Back. (The latter is known by feeling the spinous processes of the vertebræ, in the middle of the pelvis.) The mode is to bring down the feet, if the state of the uterus admits an introduction of the hand; but, should its extraordinary action, or other morbid cause prevent, we are to be guided by their indications.

Separation of the Head.

By bringing down the body in preternatural labor, if the fœtus be dead, and in a putrid state, a small degree of extracting force, injudiciously applied, may produce a partial separation, or a cervical dislocation; the management of which will be attended with considerable embarrassment.

If a total disunion takes place, the head

remaining above the brim of the pelvis; it being of an

Ordinary size; likewise,

Slippery, and

Gliding from the touch; must render the case extremely complex.

Such events have occurred, and are indicative of gross interposition; though sometimes,

A narrow pelvis, or

Neglect of the operator, in making the proper turns, may tend to induce it.

Extraction of the Head.

First, It may be necessary for an assistant to make a small degree of pressure upon the inferior part of the abdomen of the patient, by passing a napkin round her body.

Second, Take a piece of fine silk, about one yard square, with a narrow ribbon of sufficient length, sewed to each corner.

Third. The operator's right hand to be inclosed therein, and introduced into the cavity of the uterus.

Fourth, Place the silk over the head, the

use of the ribbons are to assist in spreading it or in bringing down any corner, that gets pushed up during the operation. If after the hand be withdrawn, owing to the size of the head, or contraction of the pelvic cavity, the former cannot be brought down; yet,

Fifth, The corners of the silk can be effectually retained by an assistant, whilst the operations of,

Perforation;

Diminution; and,

Extraction are performed; which may be done with facility and safety.

If the head had entered the pelvic cavity, before the separation took place, it could be easily extracted with the vectis, keeping a moderate degree of pressure, just above the pubes.

Extraction of the Placenta.

This mass is distinguished by its being,

First, Less firm than the uterus; and,

Second, More solid than coagula. In case of its adhesion to, or retention in the uterus, if there be no hemorrhage or other urgent

symptom, we should wait four hours after the birth of the child, before we attempt to remove it, when the parts may not be closed after delivery; as we have often been called to cases of retained placenta, where there has been no difficulty in bringing it away, after remaining twenty-four hours, or a much longer time.

Means for its Expulsion.

If the patient have pains, the expulsion of the secundines may sometimes be forwarded, in aiding the contraction of the uterus by means of friction, in a circular direction, or by moderate pressure on the abdomen; and occasionally pulling the funis between the pains, using no more force than what will prevent its retrocession in the act of inspiration. If these fail (and as its precipitate extraction may be productive of fatal consequences) we should endeavour to learn the

Cause of its Retention.

It may be by
Adhesion of it to the uterus;
Inaction of that viscus; or,
A spasmodic affection of its muscular fibres.

Retention by Adhesion.

Retention of the placenta, by its attachment to the uterus; although many hours have elapsed, if convinced of any degree of descent at our examinations, which are to be made but seldom, we should wait; but if no alteration be evident, and a division can be safely effected, it may be extracted. If the os externum, vagina, os or cervix uteri, are contracted, they should be gradually and carefully dilated. The following are two safe modes of separation:

The first Mode

Is to excite the action of the uterus by,
First, Introducing the hand;

Second, Slight irritation, caused by it, or the fingers upon the internal surface of the placenta, continued for some time.

Third, Lightly rubbing the abdomen, externally; or,

Fourth, The application of clothes dipped in cold vinegar, to the parieties of the latter; if it does not separate at the lapse of ten or twelve hours, from the birth of the child, we may very cautiously pursue

The second Mode.

This is more active;

First, Carefully draw the edges of the placenta nearer to each other.

Second, Gently raise them from the uterine surface.

Third, Effect the separation with the end of the fingers; but if difficulty arise from a portion adhering firmly, endeavour to disengage it.

Fourth, Alternately bend one part over the other; and,

Fifth, Pass the fingers between it and the

uterus; the closer the adhesion is, the slower must the division be; but if it be too fast to detach with safety, the whole placenta should be left, in preference to a part; for,

Sixth, The good effect of more time; and,

Seventh, The further action of the uterus. As *time* and *uterine action*, in forty-nine cases out of fifty, will effect a safe separation. When the after-birth is detached, retain the hand in the cavity of the uterus, till the latter is felt contracting; then gradually withdraw the former, containing the placenta, into the cavity of the pelvis; thence it may be expelled by the action of the parts.

Retention by Inaction.

In case of retention of the placenta from inaction or debility of the uterus, we should support the patient with cordials, and light nourishment; keep her body in a recumbent posture, and her mind in a tranquil state, that the system may recover strength, which tends to promote the tone and energy of the uterine fibres.

Retention by Spasm.

Retention of the placenta from spasmodic contraction of the muscular fibres of the uterus; called incarceration of the placenta, ascertained by examination per vaginam, which however may, in cases of real necessity, be extracted.

The Mode.

The manner of effecting this, is

First, To introduce the hand till the contraction of the cervix or cavity of the uterus is felt round the funis.

Second, One finger should be insinuated along the cord; which, when turned with a semi-rotatory motion, soon makes room for a second, and proceed in like manner, till the whole of the fingers are admitted in a conical form.

Third, Before the hand passes beyond that part, it should be slowly, but amply dilated.

Fourth, Carry the hand carefully forwards, and bring the placenta thereto, where it

should be retained, till by pressure above, we are sensible the fundus of the uterus is contracting.

Fifth, Afterwards it must be withdrawn slowly into the vagina, whence its expulsion may be effected by the action of the contiguous parts.

Necessary Deliberation.

The extraction of the placenta rarely becomes necessary if the woman,

First, Keeps in a tranquil state; and,

Second, Takes light nourishment, by which the tone of the uterus will be gradually restored; tending to encourage the

Diminution of its fundus;

Relaxation of the stricture; and,

Expulsion of the placenta.

Under similar management of one case, after the full period of utero gestation, the placenta came away the fourth day: and of another patient, subsequent to premature labor, it remained till the twenty-fourth day, without any

Material pain;

Inconvenience at its expulsion; or
Symptom of ill-health ensuing.

Inversio Uteri.

After the extraction of the placenta, we should ascertain if an inversion of the uterus has taken place, which is only liable soon after delivery, whilst the os internum is in a state of dilatation; if the complaint be not discovered, and reverted within a few hours, or in a short period after its formation, we have but little hopes of affording relief; difficulty increasing with time, till the cervix uteri girds the inverted uterus so firm that it cannot be removed.

The Cause:

Invertio uteri may be brought on or commenced by,

First, Violence used in pulling the funis;

Second, Withdrawing the hand from the uterus with the placenta before it is perfectly separated; or,

Third, The shortness of the former. If

the inversion ensued from too great a degree of force in its extension, it may be completed by the action of the uterus; and, if by the shortness of the cord, it may be effected by a small effort in pulling.

To ascertain an Inversion

The regular mode is,

First, To apply the hand to the lower part of the abdomen, and instead of the tumor of the contracting uterus will be felt through the integuments, a considerable vacuity.

Second, Examine per vaginam, and the fundus uteri will be either in the os uteri or vagina. It may be inverted quite through the former, but this seldom happens. The tumor will have for its outside the internal surface of the womb. We should examine, to ascertain if inverted in all cases of hemorrhage, that occur subsequent to labor.

If we are consulted early, there will be but little difficulty in restoring the uterus to its natural situation; recollecting that, according to the degree of contraction of the os uteri, tumefaction and tension of the fundus will be increased.

Reduction.

To effect a re-inversion,

First, Empty the bladder and rectum.

Second, Compress the fundus uteri with the hand, previously emersed in cold spring water, which with a little perseverance, will reduce its size; should this be ineffectual,

Third, The patient will require to be bled, till syncope and general relaxation of parts are produced; when, if she lies on her back, with the breech raised, and if we make an attempt without delay, violence, or precipitation, in order to,

Fourth, Reduce the fundus, or turn the tumor into a cavity, to get into the vagina;

Fifth, With two or three fingers, and afterwards the whole hand, replace the uterus; and the former should remain till the latter contracts upon it.

If a reduction be not effected, the patient will be subject to mucous discharges, or frequent hemorrhages; all we can then accomplish, will be the moderation of urgent symptoms.

Semi-inversion.

Women are more liable to this than the former complaint: here the fundus of the uterus is bent inwards, but no part of it passed through the os uteri. Having been often consulted in cases of retained placenta, frequently observed its occurrence; which had been induced by exertions in pulling the funis. The semi-inversion should be returned, and the hand remain until the uterus contracts upon it.

CHAP. V.

FIFTH CLASS.

COMPLEX LABOR.

This contains statements that have no resemblance or connexion with each other; therefore, perhaps they might, with some propriety, have appeared in four classes instead of that number of divisions. But, with a view to the original method of brevity and simplicity, we have adopted the present form; which

Takes less room;

Has fewer references;

Conveys an equal share of theory; and

Is more easily reduced or retained in memory. However, such cases seldom happen;

but when they occur, require particular attention, or manual assistance; and in rare instances, instrumental aid may be necessary in order to effect their due relief; which, that we may be fully competent to administer, the following rules and management are made easy to the comprehension of the youngest practitioner.

This class is divided into four heads:

First, Hemorrhage.

Second, Convulsions.

Third, Descent of the funis; and,

Fourth, Plurality of children.

THE FIRST DIVISION COMPRISES HEMORRHAGE,

And includes all that occur during the three last months of utero gestation, labor, and its attendant consequences. This disease is a flow of blood from the uterus, and has four varieties.

First variety are such as occur after the commencement of the seventh month of pregnancy, and before the accession of labor.

Second variety are induced during delivery of the child.

Third variety occur after the birth of the child; and the

Fourth variety are such as happen after the expulsion of the placenta.

The first and second variety are produced either by,

Detachment of the placenta from the uterus, or,

Attachment of it over the cervix uteri.

The First Cause

Is the partial or total detachment of the placenta from the surface of the uterus; distinguished by,

First, The hemorrhage being most profuse in the absence of pain;

Second, Its cessation during the presence thereof; and,

Third, The membranes being found within the os uteri, like a bladder of water.

The Second Cause.

Is the attachment of the placenta over the cervix uteri; ascertained by,

First, The hemorrhage commencing during a change made on the os uteri, which dilates as labor advances;

Second, Being most profuse during pains;

Third, Increasing with the strength thereof; and,

Fourth, The placenta being found within the os uteri, like a fleshy substance.

Constitutional Effects.

The general consequences of hemorrhage, are,

A quick and sometimes imperceptible pulse

A cadaverous aspect;

Coldness of the extremities;

Inquietude, accompanied with

Continual faintings: these symptoms are dangerous, yet the latter may afford some

prospects of relief, as three salutary effects are often produced by syncope.

The circulation is carried on more slowly;

Coagula sooner formed; and

The vessels contract more efficaciously.

Uterine Affections.

The changes produced on the uterus by the continuance or violence of the disease; are,

Flascidity of its mouth;

Laxity of its muscular fibres, and consequently,

Deprivation of its power of action.

Treatment.

With the detachment of the placenta from the uterus.

The Rule

Is to rupture the membranes as soon as felt, which always diminishes or relieves the complaint; but, if it should continue afterwards,

unattended by the action of the uterus, the first two stages of labor must be accelerated.

The Mode

Is to extract the head with the forceps, if it be within the pelvic cavity; but if not we should turn the fœtus, bring down the feet, and form a footling case. The relaxed state of the uterus shews the ease with which complete delivery may be effected, yet there is danger of its not possessing sufficient tone to contract itself, so as to stop the hemorrhage afterwards.

Treatment.

With the attachment of the placenta, over the cervix uteri.

The Rule

Is to promote labor, as soon as the os uteri with facility admits of artificial dilatation; and we should endeavour to effect the same, by

slowly, but steadiy persevering, till it be sufficient to allow the hand to pass.

The Mode

Is to

Insinuate the hand between the placenta and uterus;

Rupture the membranes;

Bring the feet; and

Form a footling case, as above.

Caution.

The last mentioned operation must be very cautiously managed.

First, In taking that part of the cervix uteri, to pass the hand where we find the least adherence of the placenta; and,

Second, To avoid separating the principle attachment of the latter, from the former, in bringing down the feet.

Mitigation of the Disease.

Hemorrhage from either of the above causes

seldom remains after an evacuation of the liquor amnii, as it invariably

Lessons the uterine distension;

Diminishes the size of the blood vessels;

Accelerates the action of the uterus; and

Enables its surface to come in contact with, and embrace the fœtus. But in case the complaint occurs, or continues after discharging the waters, which is rare, our conduct will be influenced by the following

Observations.

Various remarks on the second variety of uterine hemorrhage,

First, It is dangerous

When great discharges occur in a short time, as large vessels do not contract so soon as small ones.

When in the absence of pain, as the uterus does not act; and,

When near the termination of utero gestation, from the enlargement of the uterine vessels; therefore, the disease requires prompt attention.

Second, When delivery by the natural efforts

is doubtful, it is an established rule, to promote early the first two stages by art.

Third, If consulted in cases where no part of labor has been accelerated, and the action of the uterus is so strong about the fœtus as to prevent the introduction of the hand, the former will be expelled thereby.

Fourth, Any attack of the complaint, which deprives the uterus of sufficient energy to expel the fœtus, equally bereaves the os uteri of its rigidity and irritability; so that by cautious perseverance, no difficulty or danger is likely to arise in passing the hand into its cavity; which in other cases might produce convulsions.

Fifth, Such symptoms as indicate the necessity of delivery, prepare the parts for the facility and safety of its performance; therefore we should not wait for a soft yielding state of the os internum, which, in cases of hemorrhage, is often an alarming effect.

Sixth, When the cause of the complaint is the attachment of the placenta over the cervix uteri, we should recollect, that by adhesion the former becomes a band, which resists dilatation, it being placed between the fœtus

and os tincæ, prevents their coming in contact with each other; hence, the uterus is derived of that stimulus which in other cases, is excited by pressure of the membranes at the mouth of the womb; therefore, if from the want of constitutional powers, the birth of the child be dubious, it becomes advisable to facilitate the most tedious and painful part of the process by art.

Seventh, In cases, after the head or lower extremities are delivered, which completes the former stages, we should allow the subsequent part of the operation to proceed by the natural efforts alone; especially, as therein, a small uterine action will be sufficient, and the cervix uteri restrained from closing before the fundus acquires its degree of contraction.

Eighth, Protracting the two last stages of labor in hemorrhage affords the patient an opportunity of recovering strength. Whilst the orifices of the uterine vessels are in contact with the fœtus, a little cold wine, broth, jelly, beef-tea, or other fluid nourishment, may be often given, not only without any risk of increasing the disease, but with great advantage; and I have known the body of a live

child remain in the passage a very long time without the smallest injury, and afterwards expelled by uterine efforts, which lays the best foundation for a permanent cure.

Ninth, By recruiting the patient's strength, the action of the uterus is promoted, and the latter part of the process easily effected; the resisting powers to parturition having been already removed by the accomplishment of the former.

Tenth, By the action of the uterus, though feeble at its commencement, will the vessels contract, and their orifices close.

Third Variety

Of hemorrhage are such as occur after the birth of the child. Every discharge of blood is not a motive for the extraction of the placenta, as some generally precede its expulsion, especially that contained in the uterine sinuses; and capacious vessels, being sometimes considerable; and as it can be of no further use to the system, will escape.

Considerations

Respecting the removal of the secundines. In case of profuse hemorrhage after the birth of the child, whether it be continued to, or comes on at that period, the extraction of the placenta becomes a subject of consideration. If the patient be reduced from the disease which has abated, it ought not to be taken away, until she be sufficiently revived, as danger thereby would be increased, or fatal effects the consequence; its operation being considered, in some cases, as a remedy for present dangerous symptoms, but cannot remove the effects of such as have ceased.

The Treatment

Therefore, should first be conducted on general principles, viz.:

First, The use of sulphuric acid in addition to the infusum rosæ.

Second, The fire to be removed from the apartment, and a free current of air allowed to pass through the room.

Third, The patient to be placed in a recumbent posture, or her breech raised above the level with the head, and such a light covering only to remain over her as decency requires.

Fourth, Quietude should be enjoined; and,

Fifth, The application of a cold lotion to the external parts, which must be often renewed, as its sole virtue consists in its frigidity, which is likely to encourage the natural action of the uterus. During the range of my practice as an uniform attention to this plan has always afforded relief, I have had no occasion to fetch down the after-birth for that purpose; but should circumstances indicate its propriety, the danger of doing it, by pulling the funis, consists in

Tearing the cord from the root;

Inverting the uterus;

Injuring the latter by violence; or

Increasing the disease; therefore, that operation should be performed by the introduction of the hand; especially, as the irritation thereby produced may occation a return of the action of the uterus, which was before dormant, this facilitates its expulsion.

After the placenta is expelled, in order to

prevent a return of the disorder, it is necessary to strengthen the system; for which

Infusum Cinchona, with the addition of

Acidum Sulphuricum, is a remedy much to be depended on.

Fourth Variety.

These are such as occur after the expulsion of the placenta, and has been described as an immoderate flux of the lochia. It varies in different women, being in some inconsiderable, and others are disposed to have a very profuse discharge, which reduces them to the lowest ebb.

Cause.

This state may be produced by,

First, Precipitation in the extraction of the placenta, and not allowing sufficient time for the uterine sinuses and capacious vessels to contract.

Second, Raising the patient to an erect posture too soon after delivery.

Third, An inversion of the uterus; or,

Fourth, An inert state of the latter; which is most generally the cause, it being left in a colapsed instead of a contracted form. To guard against which, after the exclusion of the after-birth from the uterine cavity, we should allow it to remain in the os uteri and upper part of the vagina, not only for one hour, but for the space of several hours, if occasion require; as afterwards, its irritation or a moderate pressure on the abdomen may urge the uterus to act and eject it; which at the same time obliterates the mouth of the vessels. The recurrence of pain is always an assurance of safety. When the placenta has protruded through the os externum, it should remain till the membranes follow; which, with equal propriety, are to be waited for. In the latter varieties

Danger consists in precipitation, and
Safety in deliberation.

Relapse.

A return of hemorrhage, managed on the general principles, with the mode of preven-

tion, stated in the third variety, seldom fail of being successful.

We frequently find such as have had very profuse discharges, become hectic, or dropsical afterwards. Yet some patients with impunity lose a larger quantity of blood than others during labor; we are to judge from its consequences. (*Vide* Effects of Hemorrhage). The less discharged the speedier the recovery.

THE SECOND DIVISION COMPRISE CONVULSIONS.

Women are liable to be attacked by puerperal convulsions after the seventh month, but they generally occur immediately at the commencement of the parturient process. The paroxysms appear periodically, increase in strength with intervals, similar to labor pains, and independent of the latter; the former are capable of expelling the child, which, in

consequence of the disease, is likely to be born dead.

Preceding Symptoms.

The preceding signs of convulsions are,
Fullness of the vessels;
Vacillation of mind;
Delirium;
Swimming of the head;
Violent head-ache;
Indistinct vision or blindness;
Strong rigors;
Swelling of the neck and fauces, with enlarged features;
Bleeding from the nose; and
Spasms of the stomach; therefore, when these symptoms occur at or near the term of utero gestation, we should guard the patient against an approach of the disease.

The Treatment

Consists in opening all the emunctories, to afford every possible relief to the system;

and by the state of the patient, are the evacuations to be guided.

First, In bleeding from the arm, jugular vein, or temporal artery.

Second, By the application of the scarificator to the nape of the neck.

Third, Leeches to the vicinity of the temples.

Fourth, The exhibition of saline cathatics; and,

Fifth, Using the tepid bath.

Paroxysm.

An attack of this disease is known by;

First, Its extreme violence;

Second, The distortions of the face;

Third, The motion of the eyes;

Fourth, The powerful muscular action, and agitation of the whole body, which are frightful to behold; likewise,

Fifth, Foaming at the mouth;

Sixth, The act of respiration, with the teeth fixed, making a terrific hissing noise; and,

Seventh, Afterwards remaining in a comatose or insensible state, somewhat similar to an apoplectic affection; from which she awakes and continues sensible a short time, or till suddenly stretching herself out; when the return of another fit is indicated.

As sensibility in the intervals diminishes, and paroxysms strengthen, danger increases, depending on the cause of the disease; but which is not to be estimated from the frequency of their return, as that depends on the action of the uterus.

They may occur in natural or preternatural positions, but I have never attended any patient in convulsions in which the head of the fœtus did not present.

Preventive.

Women liable to this complaint, should be particularly cautious during the period it usually occurs; and

Abstain from irregularities in the manner of living;

Avoid situations where they may be under restraint;

The mind should be kept composed;

Occurrences which agitate, concealed;

Apprehensions quieted; and,

Suffering soothed by tenderness.

After the commencement of the paroxysms we have but a small chance of giving relief; yet much should be recommended:

First, Attempt to bleed amply and repeatedly;

Second, Give active cathartics, if the patient have the means of swallowing;

Third, Empty the rectum with enemas, and bladder with the catheter;

Fourth, Dash cold water in the face, or pour it on the head, in order to attempt a counter stimulus, to restore the energy of the brain;

Fifth, Rupture the membranes, that by the discharge of the waters, the bulk of the womb may be lessened; and,

Sixth, Deliver by art, as soon as the os uteri is naturally dilated; but its artificial dilatation increases the complaint.

Nervous medicines may be given, as camphor, musk, opium, castor, and assafœtida; it is most convenient for the latter to be used in the form of enemas.

Keep a piece of wood in the mouth to guard the tongue. In particular cases particular things are to be attended to.

If her state during the intervals be lucid, it is less dangerous; in those periods they seldom know any thing of what has happened, even of their delivery after the child has been extracted.

Cause.

The exciters of this disease may be

The irritability of the constitution increased by pregnancy, every part of the body participating with that of the uterus;

Disturbed state of mind;

Violent or sudden impressions;

Distention of the bladder or intestinal canal;

Pressure of the uterus upon the descending blood-vessels, impeding the return of blood from the head;

Extravasation from the vessels of the latter;

Inflammation of the brain;

The irritable state of the os uteri, or its artificial dilatation.

If the disease has been induced by hemorrhage or debility, an opposite treatment will be necessary; therefore, we must attend to the indications.

Our prognosis in these cases is generally determined by attention to three circumstances:—their

Frequency;

Duration; and

Effect.

With respect to the first, many have not more than a single paroxysm, without any repetition or danger, so that but little stress is to be laid on this circumstance; especially, if the patient has been formerly subject to this disease.

In regard to their duration we observe, that in some they last a much shorter time than in others; the symptoms are less exquisitely marked, whilst in others the paroxysms are often so violent as to prove fatal at once.

In the third circumstance, or their effect on the system, after the paroxysm is finished, we find that the recollection in many returns, or in a few minutes afterwards; in others the senses seem altogether suspended, when the

patient either continues many hours in a state of stupefaction, or delirium succeeds. In the last situation they often prove fatal.

THE THIRD DIVISION COMPRISES PROLAPSUS OF THE FUNIS.

This division of complex labor consists of those cases where the funis is prolapsed below the head. It often depends on,

First, A wide pelvis at the brim; or,

Second, An early rupture of the membranes, from the waters pressing down with force before the head is so engaged in the passage as to prevent any other part; therefore, such labors, from the compression of the cord, are frequently attended with the death of the fœtus.

The object of science is to save the child as well as the mother. If the funis be ascertained when the membranes begin to protrude the os internum, we should not rupture them, but always let nature do it; and it would be better if she did not do it, till the os uteri be fully dilated; for if the membranes remain

whole, by the lapse of time all the parts will become softer, and there will be less resistance to the head, when the child is forced down.

Suppose the bag be broken, and the string descended, it will pulsate till the head comes into the pelvis, and presses on it; therefore, a practitioner should endeavour to slide it to one side, where the pressure would be less, as returning it without any protection, will be of no use, for the first pain will force it down again.

Such labors are very dangerous to the child, particularly if the process be protracted; and from experience, we find, that where they have been trusted to nature, not more than one in four have been saved. If a practitioner turns, it ought to be done for the benefit of the child, for the mother is in no danger. This however, can only be admissible where the four following conditions unite in the same case, viz.:

First, A pulsation of the cord, proving the life of the child;

Second, The head not having entered the pelvis;

Third, The pains feeble; and,

Fourth, A relaxed state of the external

parts to admit of a ready extrication of the head.

We are not justified in turning or performing any obstetric operation, from motives of convenience to ourselves.

The usual directions given on this occasion have been,

First, To return the cord, when done;

Second, To keep it up; and,

Third, To preserve it from pressure; the first is practicable, but the second and third no rule of practice has hitherto been able to effect. (*Vide* Dr. Denman's Practice of Midwifery, Vol. II., pages 411, 412.)

In attending a variety of funis presentations, which afforded opportunities for trying a number of methods, the following one has been found always effectual:

Protection of the Funis.

First, Allow the head to descend till it is nearly within the pelvic cavity, during which, the umbilical circulation is seldom impeded.

Second, Elevate the breech of the patient higher than a level with the head.

Third. On the cessation of a pain, retract the head of the fœtus sufficiently to return the funis above the brim of the pelvis; and,

Fourth, Follow it with a piece of new sponge, of an oval form, and adequate size, previously emersed in warm water, and squeezed well out; as the sponge immediately expands, prevents itself or the cord from re-entering the cavity, till the head has descended below it.

The arrest of danger is so certain in the above easy mode of retention, and its application so safe, that I have never lost a child, or experienced the smallest injury to the mother, in the management thereof since its institution.

THE FOURTH DIVISION COMPRISE PLURALITY OF CHILDREN.

If the management of labors with one child be rightly understood, those where twins exist cannot be difficult. We have generally some evidence of twin pregnancies.

Primary Signs.

First, Unusually enlarged abdomen;

Second, Uncommon motion in the uterus;

Third, The complaints of pregnancy unusually severe;

Fourth, Slowness of the antecedent delivery; and,

Fifth, A second distinct discharge of waters before one child is born, (as it is the rule of nature, to contain each fœtus in a distinct bag.)

These are the several symptoms that give some suspicion of twins before delivery; but after the expulsion of the first child, more certain evidence occur.

Secondary Marks.

First, A gush of liquor amnii subsequent to the first labor;

Second, The abdominal rotundity remaining after one child is delivery;

Third, A continuance of regular pains; and,

Fourth, The presentation of the second fœtus or membranes, ascertained by examination per vaginam.

Rules.

First, When we are certain of the existence of another child in the uterus, it is thought eligible to acquaint the friends of the patient therewith, if they be present, but not herself, until the head is dilating the os externum, as it will agitate her mind; and mental perturbation retards uterine action.

Second, If the first child require turning, avoid rupturing the membranes of the second; and when the bag is broken, if we bring down two feet, care must be taken that they belong to one fœtus.

Third, The first process of a twin case is usually slow; and the second, if it presents naturally, ought, if possible, to be more deliberate; although no difficulty may arise, yet much time should be employed; and still more with the placentæ, if they do not discend spontaneously; that the contraction of such an expanded uterus may be uniform and

permanent; therefore, an artificial delivery of the second twin should only be attempted where,

I. Constitutional causes may render it necessary; or,

II. The last twin require to be turned. For the latter reason a practitioner should be forthcoming when the membranes brake.

Fourth, The reason practitioners generally wish to deliver the second child within a limitted time, is from an idea that the inferior generative parts soon return to their primitive state. But the inconveuiences arising from a contracted os internum or externum is inconsiderable, when compared with that of an irregularly reduced, or colapsed uterus, particularly liable after the hasty expulsion of twins.

Fifth, Whether the placentæ are separate or connected, if assistance be necessary, which is improbable, unless from constitutional causes, we are to aid the expulsion of them together.

Sixth, The uterine discharge is more copious with plurality of children, than it is in natural parturition.

Seventh, In protracted delivery the attention to the patient, should consist only in relieving

Perturbation, or

An irregular state of the body, as circumstances indicate. With such management, parturition may continue many days in perfect safety.

Safety of Human Parturition.

Of twins and triplets no case has occurred within the range of my practice, which really required artificial assistance. By attending to nature's time and efforts, through the space of fifty-four years, I have not yet experienced the loss of one patient during the process of labor, nor in consequence of its management, (unless where employed in consultation,) having been ever influenced by a conviction, that when assistance is unnecessary, interference becomes injurious.

Average of Cases.

In thirteen thousand, two hundred, and

eighty labors, seven women were delivered of triplets, and two, of four children each; but no one of my patients have had a greater number at any single period.

The proportion of twin cases appear to be about one in thirty-six.

Complicated Labor.

Sometimes the latter classes of labor combine, or run into each other, viz.:

First, A labor may be premature; this respects the period of pregnancy when it occurs; and the same may be protracted, which refers to the length of the process; and likewise it may be complex, owing to some attendant circumstances; and,

Second, Another labor may be premature, complex, and preternatural, in the same case; the latter respects the presentation.

Nine of these cases out of ten may require no artificial assistance, terminating perfectly safe to the patient.

Monsters.

The early symptoms of monstrosity are similar to those in natural pregnancy. At the time of labor, whatever be the structure of the fœtus, it is generally delivered with ease; we may be mistaken in the presentation, but if difficulty arise, an investigation may discover circumstances which constitute a a monster, comprehended by the term *Lusus Naturæ*. For its extraction, with safety to the parent, the rules of practice provide for every exigence.

Classes.

There are various descriptions of monsters; the following three classes are mentioned:

Redundants;

Deficients; and

Confusions.

First, From a redundance of parts, consisting of additional limbs, toes, fingers, or excrescences, which are more or less important according to size or situation.

Second, From a deficiency of members, as of the brain, or of the whole head, as in the acephalus; of one eye, as in the monoculus; of the lip or palate, as in the hair-lip; of an arm, hand, one or more fingers; of the spinal processes of the vertebræ, as in the spina bifida; a part of the abdominal viscera, or of the lower portion of the rectum, terminating before it reaches the anus.

Third, From a confusion of substances, when the whole body is in one mass, (*vide* Moles,) or of surfaces adhering together, as of the fingers, toes, anus, or vagina.

Cause.

Formerly, and indeed till within these few years, it was a generally received opinion, that monsters were not primordial or aboriginal, but that they were caused subsequently, by the power of the imagination of the mother, transforming the defection of some external object, or the mark of something which she anticipated, to the child; or to some accident which happened to her during pregnancy, or from fright.

Although this opinion is (unless what happen from accidents) disapproved of by modern practitioners, forming such objections against it as seem to be founded upon the want of nerves, in the connecting medium between the mother and the fœtus, to effect the nævi materni; yet, in many cases, from various experienced facts, we are inclined to acquiesce in the original opinion.

Moles.

By this term authors have described different productions of, or secretions from, the uterus. By some it has been used to signify substances, which are the consequence of imperfect conception; ovo deforme, or when the ovum is in a morbid or decayed state; others (and which is the most popular opinion) thinking any coagulum of blood, continuing long enough in the uterus to assume its shape, and to have only the fibrous parts, as it has been called, remaining, is denominated a mole.

As collections of this kind, which most commonly occur after delivery, would always be expelled by the action of the uterus, there

seems to be no reason for enquiry, if ignorant women had not annexed the idea of mischief to them; and attributed their continuance in the uterus to the misconduct of the practisioner; but experience proves that the retention of such coagula is not, under any circumstances, productive of danger; and that they are most safely expelled spontaneously, though at different periods after their formation.

Cause.

As such collections frequently occur in practice from retention of some part of the membranes, casually separated, we should guard against reflection; when suspecting any portion of them are left in the uterus, which in suspending the placenta by the funis, the deficiency will be visible; and, as coagula are sure to collect about it, we may observe to the nurse, in the presence of the patient, that if any condensed clot of blood should pass with the discharges, or when urine is voided, it must be reserved for our inspection, as we may judge from its appearance if the cleans-

ing be regular, and contraction of the uterus permanent; which observation provides for such occurrences as may happen, and convinces the patient of our due attention to the puerperal state.

CHAP. VI.

EXTRA-UTERINE LABOR.

The labors that have been as yet described, are uterine, and such as are effected by natural passes. But it sometimes happens, that labor occurs by a preternatural way, of which history affords us many instances, particularly that of Cæsar; however, it must have a termination, which is effected either

Naturally, by her own efforts; or

Artificially, by means of an operation. When nature relieves herself it is not in the same way.

We sometimes hear of a woman discharging bones through the rectum; and at other times of an abscess being formed, and point exter-

nally on the fore-part or side of the abdomen; which is said to have thrown off matter and bones: now in such cases, the fœtus has not been in the womb, and therefore labors here are divided into

Uterine, and

Extra-uterine. When it is in the womb it may be expelled by pains. When it is not in the womb its expulsion is altogether casual.

In uterine conception, after the lapse of nine months, the efforts of nature will come on, and if she cannot expel the fœtus, and it cannot be brought away by art, the efforts still continue at times, till the patient sinks.

Extra-uterine conception may occur in different parts; they are of three kinds, viz:

Ovarian;

Tubal; and

Ventral.

Ovarian Conception.

In this the vesticle has not burst, and the evolution and growth of the fœtus has gone on. Under these circumstances, the vesicle becomes supplied with vessels. It is not

difficult, therefore, to conceive how it may evolve and grow, but the difficulty is to know how it may be brought away.

After the term of nine months, active life is at an end, the fœtus ceases to grow, and the soft parts may be taken up by the absorbents, leaving only solids; these excite irritation and inflammation, and the ovary becomes a circumscribed abscess: if this adheres to the abdomen, it points; but the ovum may pass back, and

Adhere to the rectum;

Ulcerate through it; and

Bones pass per anum; this is the most usual kind.

Tubal Conception

Is when the fœtus is in the fallopian tubes; now the ordinary process has gone on in the ovary, and the tube has received the rudiments of the fœtus, but owing to some defect in its action, has never carried it into the uterus; and therefore, the evolution has taken place in the tube. Sometimes, when the ovum has been of some size, the tube has

given way, hemorrhage succeeded, and the woman died from bleeding internally. At other times the tube has grown with the ovum, so as to contain it the full time.

There is reason to believe, that sometimes a child that has been in the uterus may become an extra-uterine fœtus;

I. The uterus may rupture from accident;

II. Its contents pass out; and afterwards, in a manner,

III. Close again; and

IV. A cist may be formed by the assistance of the peritonæum, containing the fœtus on the outside of the uterus.

Ventral Conception.

This is when the vesicle has burst, but the fallopian tubes not having embraced it: the rudiments of the fœtus have fallen into the abdomen, and fixed on some part there, where the evolution has gone on; but when complete, there was no outlet; this is the most dangerous, because the operation must be made, not only through the abdominal integuments and muscles, but the peritonæum

also. As the symptoms of such cases may be equivocal, nothing should be attempted till nature points it out; for a woman may remain in this condition for years, and then be the subject of an operation, which consists in cutting into the cavity containing the child, extracting it, and afterwards closing the wound.

Such operations have been improperly called Cæsarian; but we are next to treat on the true one.

CÆSARIAN SECTION.

We are now to consider the manner of performing the Cæsarian operation. This always supposes an incision made into the uterus. It may be recommended in the living subject, with

Extreme distortion; or

A rupture of the uterus. But it is more frequently required on the *sudden death of the mother.*

In Case of Distortion.

The previous treatment necessary for the operation, is clearing the bowels and emptying the bladder, that the patient may be as little disturbed as possible for some days after. With the necessary apparatus for the process, there should be a needle armed, to take up any vessel that may appear in the external opening. This incision has been made in various situations, so as to be termed

Lateral, or

Umbilical. The former is the most frequent, and the left side preferred, as the liver, if enlarged, does not intervene.

First, It must begin near the umbilicus, and carried downwards about seven inches, or long enough for the largest part of the fœtus to pass.

Some reasons are urged against the lateral incision;

I. That accidents are more likely to happen from an opening in this situation.

II. There is a greater depth of muscle to pass through than at the linea alba.

III. In this part there is danger of cutting some branches of the epigastric artery.

IV. From the muscular substance divided, retracting to a greater length, the intestines are more liable to push out; and,

V. The opening is not parallel with the longitudinal axis of the uterus. Still the disadvantages of an umbilical incision are more considerable, particularly from the situation of the bladder; therefore the lateral opening may be with much propriety prefered; for more will depend on the management, than on the place of the operation.

Second, The incision is to be carried on slowly till the peritonæum is laid in view; and before attempting to open it, any vessels are to be taken up, to prevent, as much as possible, an effusion into the abdomen. There is no danger of mistaking the bladder for the uterus, if the state of the former has been previously attended to.

Third, The opening into the uterus is to correspond with the external one; yet in making it, caution should be used to avoid the situation of the placenta. The child will be discovered by its whiteness, for the membranes are ge-

nerally broken long before this operation is determined on.

Fourth, Take hold of the feet and draw out the child without loss of time.

Fifth, If the uterus contracts about its neck, pass your finger along the child's belly, so as to get it into the mouth.

Sixth, Keep the chin close on the breast.

Seventh, When the child is extracted, follow the navel string into the uterus to the placenta, which must be drawn together by the hand, and brought through the opening.

After-Treatment.

The after-treatment is the most important part of the business; in which two circumstances should be had in view:

First, To promote the adhesion of the divided parts; and,

Second, To guard against inflammation.

To promote adhesion, the contraction of the uterus will keep its cut edges together: for the management of the external wound, different opinions have been proposed; sutures are the certain method, as the action of

those muscles is considerable; but it is well known that the effect of sutures is pain and increase of inflammation; besides, the bulk of the uterus diminishes very quickly after the operation, so that in the course of twenty-four hours it is situated partly within the pelvis, and much reduced in size. Hence the danger of any protrusion at the opening is not so great, if attention is paid till this state takes place; and therefore, the principle reason for the use of sutures may be in a great measure dispensed with. The integument of the abdomen from the distention of gestation are so much extended, that their retraction will not occur sufficient to render the application of sutures necessary.

First, Keep the lips of the wound together by the application of long slips of adhesive plaister; which, if they confine it for about thirty hours, (in the collapsed state of the parts) the danger of protrusion will be over; the sides being thus brought together.

Second, To favour their retention still more, some simple dressings are to be applied.

Third, Pass a napkin round her body to keep them smooth, but not tight.

Fourth, Carefully place her in bed; and,

Fifth, She should be kept very quiet, and no one allowed to be with her but what is necessary, as it is impossable to say what particular symptom may come on; and as no specific rule can be laid down, we must be guided by indications.

The second circumstance, viz., to guard against inflammation, is the most momentous, as the consequence of its occurrence may be fatal.

The spreading of inflammation, in the present case, has been considered as arising chiefly from the access of the external air into the cavity of the abdomen; which, in the operation, must take place in a certain degree. That inflammation may be considerably increased by this, there is no doubt; but even in those cases, where every attention was paid to its exclusion, the termination of the disease has been equally fatal, as where no such caution were observed. We cannot, therefore, attribute it so much to this circum-

stance, especially when we know, that in peritonitis, where no air is admitted, there is often the same fatal termination as after the Cæsarian section.

To account for its fatality in a more certain way, we may observe, that when any point of the surface of a cavity becomes inflamed, it possesses (independent of the admission of air) a tendency to spread, and the consequence of this is either

Adhesion, or

Suppuration. The former is the most favourable; therefore, such a restriction of the divided parts as favours it should be studied; for if once suppuration takes place, from the exhausted state of the patient, and the long continuance of irritation on the system, death must unavoidably ensue. And the quantity of discharge which necessarily arises from such a large wound, generally prevents adhesion; and it is, therefore, more from the formation of matter within the cavity of the abdomen, or the extravasation of fluids, that is to be considered as the cause of death, than the mere temporary admission of air in the opening.

The latter forming an accidental;

The former a continued irritating cause; which, in the inflamed state of the cavity, the absorbents are unfit for removing any portion of the extravasated fluid, before this termination takes place. Hence the necessity for the removal of every extraneous matter from the abdomen, before the lips of the wound are placed in contact, and of occasionally moving the dressings, that the discharge from the abdomen, preventing the formation of pus may arise; and though the admission of air is thus endangered, it will be found less troublesome than matter formed in the cavity.

In case of Rupture of the Uterus.

This is an accident which seldom happens; yet we may not be surprised at its occurrence, when we consider the manner in which the action of the uterus takes place in labor. By its contraction every part of its cavity is straightened, or forms a resistance to its contents. This however, is less at the orifice than at any other place, and the action of the other parts is likewise assisted by the abdo-

minal muscles and diaphragm, which render the effect of this contraction more powerful on the orifice. If the latter is uncommonly rigid, or preternaturally contracted, so as to possess an equal resistance with the action of the other parts, the labor cannot proceed, or some part of the uterus that is weaker than the orifice, (from the action of the other parts bearing against it) will rupture. The place of the uterus at which that most commonly happens, is the neck; for the fundus is protected from the superior resistance it acquires, by the addition of the abdominal muscles and other assistant parts co-operating with it.

The frequent causes of this accident are,

First, Protracted labor;

Second, Distortion of the pelvis;

Third, Morbid contraction of the external parts;

Fourth, Violent and irregular contraction of the organ itself (as in case of convulsions);

Fifth, The bulk of a large head locked in the pelvis; and,

Sixth, Accidental injury of the uterus, from efforts of the fœtus; yet all these may

happen without any injury to the uterus; but if they occur when that organ is previously in a diseased state, it is likely to take place. The signs of it are,

First, The sudden disappearance of the head or presenting part, formerly easily felt;

Second, Excessive pain of the abdomen, fixed particularly in one place;

Third, Remission of the labor throes, formerly violent;

Fourth, Vomiting;

Fifth, Hemorrhage; and

Sixth, A weak intermitting pulse, with tendency to deliquium.

It is the sudden disappearance of the presenting part, and the state of the pulse, that we chiefly depend on.

When this takes place, the Cæsarian operation has been proposed; but some objections are urged against it, from the state of the patient; and more especially, as the child does not descend into the abdomen immediately; so that some of its members being entangled in the laceration, will allow the introduction of the hand to get at the feet. Besides, wounds of the uterus are not always fatal, and a

greater chance, therefore, is given to the patient, if the extraction is made by the natural passage, than by a new incision through the abdomen. The delivery, however, must be very quickly made, as by keeping the wound extended, the patient will sink in a few minutes from internal hemorrhage.

When the rupture occurs in the more advanced progress of labor, or where the head is fixed in the pelvis, the forceps are to be employed to make the extraction as quick as possible; and the hand being introduced to bring the placenta, we shall be able to ascertain the extent of the rupture.

The diagnostics in these cases, are generally so uncertain, as either not to strike the practitioner at the time; or the patient being attended by women, they are not sensible of the danger when the rupture takes place: likewise, the indications of this complaint are precarious, yet it may be conjectured by,

First, The abdomen being distended and prominent;

Second, The vagina drawn upwards;

Third, The os uteri high and rigid; and,

Fourth, the pains extremely violent, without any advance of the labor.

The Cæsarian operation is universally attended with much danger; but we are told that it is more successful in France than it is in this country; for which we are at a loss to explain, unless

Their manner of living is more regular;
They are less exposed to disease; or
Their's is a more salutary climate.

In case of Sudden Death of the Mother.

The last, and perhaps only situation in which we can recommend the Cæsarian operation in this country, is when the woman has died after the seventh month, it being instantly performed, offers the only means of saving the child, as it cannot survive her many minutes. It is needless to observe the cautions that are necessary in the living subject.

CHAP. VII.

PUERPERAL STATE.

By delivery a new habit of body is evidently induced different from what prevails during pregnancy; and this habit may be defined by:

A peculiar state of debility, with

An increased action of the system; appearing by the pulse and various symptoms of irritability; which may be considerable from,

First, The great degree of relaxation, consequent to the removal of the uterine contents; the expansion of which completely fills the abdomen, and for several months impedes the functions of the principal organs.

Second, The suddenness of this removal, and its tendency to syncope; and,

Third, The discharge of blood, which fol-

lows the expulsion of the placenta, acts as an additional power in increasing this state.

Notwithstanding the complaints naturally incident to the lying-in-state are few, whilst those proceeding from art are various, and often fatal.

Sometimes delivery leaves a patient in a very critical state, with

General lowness ;

Disposition to hemorrhage ;

Imperceptible pulse ;

Syncope ; or

Convulsions, induced by extreme debility ; but independent of this, we should not allow her to be moved till she becomes perfectly recovered from fatigue. Generally in about two hours after delivery a patient will feel herself sufficiently recovered, when it may be proper,

First, To place her in bed ;

Second, Have her foul things removed ;

Third, The clean clothes drawn smoothly down ;

Fourth, The broad band of the skirt tightened, just so as to remain easy and comfortable round the abdomen. She must not be raised to an erect posture, as it may cause

syncope or hemorrhage; whereby appears the utility of having her clean clothes put on and turned up before delivery, as they may be drawn down with facility afterwards;

Fifth, She must remain still and quiet; and,

Sixth, Her room kept dark and cool.

Syncope.

In case of fainting, or any hysterical affection which may occur after delivery,

First, Keep the patient in a recumbent posture.

Second, Open the curtains and windows, for a current of fresh air to pass through the chamber.

Third, Light nourishment should be given, with or without a little wine, as symptoms indicate; but spirituous liquor, in a lying-in or child-bed apartment, does not appear to be ever necessary.

Fourth, Likewise pass the hand under the generative parts of the woman, to ascertain if the cause be hemorrhage, which treat accordingly.

Generally about the third day, the patient will set up to have the bed made, but if there be great debility, she must be gradually lifted to one side of it only, while the nurse makes up the other; but we often observe, if she has been duly supported with proper nourishment, will be fit for this operation the second day.

Diet of the Patient.

In general, during the first two or three days, the diet ought to be low, but sufficient should be given for the strength of the patient to be duly supported.

In treating on this subject, we should attend to,

First, The difference of constitution, as some will require solids when others can take only simple fluids;

Second, The habit and inclination of the patient;

Third, The lacteal secretion; and,

Fourth, The lochial evacuation: as a woman who suckles, or have large lochial evacuations take a greater share of diet than others; and always, when a child sucks regularly,

the mother should be treated as a wet nurse; by allowing her to take white or brown caudle freely, from the time of her delivery, and by the second day chicken, rabbit, veal, or other light animal food, that

Her usual strength may be restored;

The system guarded against nervous debility; and

A good breast of milk encouraged. The nutritious quality of the latter will be much increased by the use of vegetables with the animal food.

Sometimes vegetable diet disturb the bowels, this is only likely when it was not commenced and continued with the animal food.

Spirits,

Spice, and

All kind of stimulants must be avoided: with this management the use of aperient medicines are seldom required before the third day.

Caudle.

This has been the usual allowance; it consists of oatmeal boiled in water until it is of

the consistence of a thin jelly, and rendered agreeable to the palate by the addition of a little sugar, and as much ale as makes it duly cordial; it is then denominated the brown sort; but, if instead of ale a little wine be added, it then receives the name of white caudle.

First Visit to a Child-bed Patient.

The first time we attend a child-bed patient after delivery, the principle questions should be directed to the nurse. We are to observe the state of the patient's pulse; that of her skin; and the appearance of her tongue: enquire if the lochial discharge be little or much; and if any condensed clot has been expelled therewith: what sleep she has had; how the after-pains have been; if her breasts secrete milk; if the infant sucks; if it has evacuations of meconium; and if it has wetted a napkin. The two latter questions answered in the affirmative, evidence the previous state of the child's passages.

Likewise, enquire if the mother has discharged any urine; in case it be retained six-

teen or eighteen hours after delivery, circumstances may indicate the utility of passing the catheter; therefore, an Accoucheur in full practice, especially if a resident in the country, should always carry one in his pocket.

Incontinence of Urine.

This happening after delivery may be occasioned by two states.

Sometimes only by a temporary debility from pressure; as after labor, when the head has pressed long on these parts: as this is only a loss of tone, a short time will set it right.

But there are cases in which time gives no assistance, as the urine continues to come away; therefore, the bladder has been injured, either by the long pressure of a large head, or the use of instruments; consequently a slough comes away, and afterwards the urine passes involuntary per vaginam. This admits of no cure, as here is a loss of substance.

Give mucilaginous drinks, to take off the acrimony of the urine, and apply cooling washes.

Menorrhagia Lochialis

Is a discharge after the expulsion of the placenta, more or less, or of a longer or shorter continuance. Women who

Have copious menstruations will have

Profuse lochial discharges, called the cleansing. It decreases as the uterus contracts, but is seldom regular, some days more than others; and when the uterus has contracted to a certain size, its vessels ooze only serum; it tinges the linen green, and is called the green waters; which, in their passage through the reduced cavity of the uterus, mixing with the decayed membranes remaining on its surface, gives the discharge that colour.

They generally disappear between the eighth and fourteenth day, sooner or later, but a relapse may be produced by slight causes till the uterus is contracted to its usual size. It continues longer with weak women, and those which do not suckle, than with strong and those who do; and a similar irregularity in the discharge may sometimes be observed with such females as are of an equal degree of

strength; yet if they be free from morbid affection; with a

Moist skin;

Regular pulse; and a

Good appetite; will recover equally safe. Suddenly suppressed lochia, sometimes excites apprehension, but is seldom dangerous, unless when it is symptomatic of internal inflammation.

A too profuse lochia, is allied to flooding after delivery, and a similar treatment may be necessary.

After-Pains.

Though the removal of the placenta frees the uterus of its contents, yet it is some time before the fibres, extended for such a length of time, regain their natural contracted state; and for this purpose their action is exerted in a slight degree, forming what are called secondary or after-pains. Women are generally more or less troubled with these pains. Succeeding either to their first or protracted labor; where the uterus contracts gradually to the body of the fœtus, they are less felt than

after subsequent or quick ones; in the two latter kind, the uterus may colapse or contract suddenly, but not uniformly. These pains come on soon after delivery, return at longer intervals, and less in degree, but similar to those in parturition.

Cause.

The principle exciters of after-pains are,

First, The discharge of coagula from the uterine sinuses and capacious vessels, blood having been retained by the irregular or hasty contraction of the uterus.

Second, The irritable state of the internal surface of the womb, from the premature extraction of the placenta, the former exciting a succession of coagula; whereas, if we had waited for the exclusion of the latter, by the action of the uterus, its cavity would have been gradually diminished as the placenta descended.

Third, Coagula passing through the cervix and os uteri.

Fourth, The permanent action of the fibres of the uterus; and,

Fifth, The irritable state of the os uteri, increased by the number of labors or miscarriages. They are aggravated by flatulence, costiveness, and when the child is put to the breast. Sometimes the pains are acute, yet prove salutary; therefore, we should not suppress them till the end is obtained for which they were excited; however, we may moderate them by applying warmth to the abdomen in any form, the best is bladders half filled with warm water, and after the first day, by procuring motions; especially the latter, if they arise from an irritable state of the os uteri. Those pains may be easily distinguished from such as are the effect of

Enteritis;
Inflamed uterus; or
Puerperal fever.

Colic.

Women are subject to colicy pains; often preceded by constipation, produced by opium; here the pain will be forward and sharper, there will be flatulence and the bowels dis-

tended; in these cases relief may be given by enemas, and aperient medicines.

Laceration of the Perinæum.

In patients, managed with professional propriety from the commencement of labor, an injury of such importance is so rare, that I never experienced it, unless in a trifling degree, and where the difficulty had been considerable; but from mismanagement or inflammation, it may lacerate to the sphincter ani, which is of serious consequence, yet even the latter may heal by the first intention;

If cleansed from fæculent matter;

The edges brought in contact; and

The thighs kept close by means of bandage. If the laceration goes through the sphincter ani the woman cannot retain her fæces.

Where there is much bruise and abrasion of surface, owing to difficult labor, a purulent discharge from the part generally occurs, which may be cured by the white wash.

When called to a patient casually in pro-

tracted labor, we should examine, to ascertain the state of the parts, particularly that of the perinæum,

If it be inflamed; and

The membranes ruptured, they evidence some premature interference; therefore, we should order emollient enemas, and fomentations of chamomile, &c. at the same time explain their intention to the friends of the patient. If labor takes place, whilst such perinæal affection continues, it having lost its dilatability, will be sure to lacerate; such attention prevents reflection on our conduct.

If the above remark act as a proper stimulus in cautioning midwifes, they will in future avoid interposition with natural labor, and be induced to take early advice, in such cases as ought to be referred to the conduct of an Accoucheur.

Either laceration or inflammation taking place, on the perinæum during travail, is attended with,

First, Considerable danger to the patient; and,

Second, Great reflection on the practitioner.

Suckling.

After the patient is placed in bed, and the child dressed, its mouth should be applied to the breast, whether the secretion of milk has commenced or not, as irritation and warmth of the former encourage the action of the lacteal glands of the latter.

It is customary, as soon as the child is dressed, to feed it with fresh butter and brown sugar mixed, but which is improper, as new-born children imbibe early habits: it should be repeatedly encouraged to take the nipples, and used to sucking before any thing else is put into its mouth, whereby tumefaction and suppuration of the breasts are prevented, the milk regularly taking its natural course.

When pregnancy or other cause do not prevent, nine calendar months is the usual period for suckling.

Inflammation of the Uterus.

This may be occasioned by;
The hardness or difficulty of a labor;

The use of instruments;

The violence used in turning; or

The application of cold. The inflammation generally comes on, the second or third day.

Symptoms.

There is a continual pain, which is increased by pressure on the lower part of the abdomen, with the common symptoms of fever; as

A quick pulse;

Rigors;

Sickness;

Heat;

A dry furred tongue; and

The lochial discharge is either stopped or diminished. The latter symptoms are accompanied with great danger.

The Treatment

Should be on the antiphlogistic plan; open the bowels, freely and repeatedly; and if the pains increase, bleed, and this according to the state of the blood and urgency of the case; blister the calf of the legs, and take

liberally of diluent drinks. When active means have been attended to early, and the symptoms are abated, support the patient with good gruel, beef-tea, mutton-broth, &c.

Milk Fever.

About the third or fourth day after delivery, women are likely to have rigors, and afterwards a hot-fit, with other febrile symptoms, attended with a painful distention of the breasts; at this time the milk is coming forward, the symptoms of fever generally subside in a day or two at the farthest. The pain in the breast will remain troublesome for sometime, but gets easier when the milk flows or passes by the nipples, as it does sometimes spontaneously.

Lacteal Secretion.

There are many women that have very little milk, and others have a great deal. In some constitutions where all that can be done will not bring the milk forward. Sometimes there may be a disposition to secrete, but

from weakness, nature cannot keep it up; therefore they must take more nourishment; and when the secreting energy is great, it will be proper to treat them on the lowering plan.

Tumid Breasts.

Sometimes a woman will have much milk, but it may happen, from various reasons that the breasts are not emptied by the child; the principle cause of this is neglecting to apply its mouth to the nipples early; consequently, the glands get hard, painful, and enlarged, till the swelling extends to the axilla; but much of this might be prevented, by checking the power of secretion; sometimes she may carry it off by the skin, or kidnies, but the best and most convenient way to effect this, is by setting up a diarrhœa; she may have six or eight motions a day; fluids and diet should be taken in moderate quantities. The breasts are to be supported in a sling, and externally apply cloths, frequently wetted with the oil of sweet almonds

and camphor; likewise draw off some of the milk to unload the vessels, and not to prove a stimulus to the secretion, as the suction of the child does; this is to be effected by proper glasses, and when the nipple is so short that the child cannot draw the milk, we may use glasses to get it up: sometimes a breast will become hot, inflamed, throbbing, and at last suppurate; then apply an emollient poultice two or three times a day, and if the opening be spontaneous, which is preferable, (as an abscess of the breast ought not to be opened by incision or puncture) a second suppuration seldom takes place. It is to be treated as another abscess, leaving its discharge to nature.

Sore Nipples.

If the nipples are tender or abraded, we must endeavour to prevent their cracking by applying astringents to them; as brandy, or a weak solution of alum. Yet the child's mouth is the best application for tenderness; in many instances they heal whilst suckling.

If they get sore and painful, the shield must be used, by which the child can suck, and the nipple being undisturbed, will heal.

If the nipples have been pressed in, which is often occasioned by the mode of dress, the soreness may be the consequence of drawing them out; however, it must be done.

Swelling of the Genital Parts.

Tumefaction of the external generative organs is the frequent effect of

Unusually contracted parts;

A tedious labor;

A large head; or

A first child. It is generally attended with a suppression of urine, which continues for several days.

The cure of this complaint depends on the use of fomentations, emollient poultices, and the occasional introduction of the catheter.

Puerperal Fever.

This complaint is generally characterized by

The common symptoms of fever; and

Violent pain in the head and abdomen, particularly the latter. In some it assumes an active form, with others it is of a low kind. The pain in the abdomen depends on the inflammation of the peritonæum; this is constantly increasing, and by pressure, is felt very acute.

It is a disease that runs through its course very quick; sometimes proving fatal in two or three days; but generally about the fifth day. The seat of it is about or near the umbilical region, and it may be distinguished,

First, From uterine inflammation, wherein the lochial discharge is obstructed, and in the advanced stage, the patient is subject to delirium, which is not usual in puerperal fever.

Second, From inflammation of the intestines; in this case the bowels are more difficult to be acted on, but with puerperal fever, a moderate purge will act.

Third, From violent after-pains, which are neither constant nor attended with fever, and wear off in two or three days; and,

Fourth, From colicy pains; here the intestines are confined, and the pain will be carried off by opening the bowels.

This fever is sometimes supposed to be contagious, but that can only be among women after delivery. The prognosis may be regulated from the symptoms; as

Headache;

Pain and tension of the abdomen;

Constant watchfulness;

Acceleration of pulse; and

After two or three days shortness of breath. The latter symptom is induced by the diaphragm making pressure on the diseased part. At this stage of the disease they can only lay on the back, turning on either side gives excrutiating pain, from pressure on the peritonæum.

The sudden subsidence of pain, with debilitated pulse, a clammy sweat, and the patient appearing to be in a sinking state, shews a dangerous crisis; but if the pulse be steady, and the circulation going on in the extremities, possibly a favourable turn may take place.

Treatment.

First, If the patient should be seen within twenty-four hours after the first rigors, and

the complaint is active, with a strong pulse, she should be bleed; but afterwards it is seldom successful.

Second, The bowels should be kept uniformly open, with a mixture of senna, magnesiæ sulphas, &c.

Third, The stomach should be cleared every other day with an emetic of ipecacuanha; or in case of continued sickness and vomiting, saline draughts in the state of effervescence pro re nata.

Fourth, The abdomen should be frequently bathed with an anodyne liniment, and fomented with chamomile and poppy-heads.

Fifth, Blister some distant parts, as calf of the legs, inside of the thighs, &c.

Sixth, During the latter stage, give liquor ammoniæ acetatis, with camphor, &c., treating it as a low fever, or in case of symptoms of putrescence, give wine.

Seventh, A spontaneous diarrhœa should not be interrupted, as it may prove salutary.

Mania.

The nervous system is liable to be affected in the puerperal state, as with some women all the senses are uncommonly vivid, and the mind is agitated by the slightest impressions, which has at this time a powerful influence. Hence the tendency of mania, which is to be remarked now and then in those patients, although perfectly free from any appearance of it at other times; and the watchfulness which some experience for many days and nights together. Hence also the powerful effect which the least surprise or fright is apt to occasion.

Phlegmatia Dolens.

This disease does not come on immediately after delivery, but attacks at different times from parturition; as one, two, three, or four weeks It generally begins with a pain in the iliac region; from thence it extends to the pauparts ligament, the groin, and upper part of the extremity, but seldom in the lower.

It is painful on pressure, and shews itself by enlargement, it goes on increasing in size, and pits like œdema. In a few days it loses its softness and becomes hard; probably this is owing to something firmer being effused than was at first, which seems to have been serum, but afterwards coagulum lymph: this may continue for a time, and usually there is superficial inflammation. I have never known any to supurate.

With respect to the cause, it may be connected with secretion, the phenomina of this disease is considered in the office of the absorbent system. It appears the pain first comes in the iliac region, and goes in the course of the iliac vessels; there are a number of glands, and therefore, some reason to believe it commences in inflammation of these absorbents; the consequence of this is, that these become solid, and deposit coagulable lymph in their cells, so that nothing can pass; and the absorbents below must enlarge, and this according to the number of glands diseased, which accounts for the swelling.

Now the mode of treatment that has been found successful, justifies this opinion, which

is to relieve the inflammation of these glands by leeches to the groin; apply six to prevent the disease coming to such an extent, if the first leeches do not draw away enough, apply others; also a blister to co-operate with these; give emetics, and follow them up with aperient medicines. If these are attended to at the commencement, it may prevent the disease from forming perfectly; otherwise it goes on increasing to a great extent, gets very painful, and the limb becomes hard. Now less effect will be gained by the above means, than is expected in the beginning; which, however, must be employed, to render the glands previous to the passage of the lymph. It will be advisable in obstinate cases to rub in mercury.

Prolapsus of the Uterus.

The prolapsus uteri, or descent of that organ, is most likely to occur in women in a low condition of life, who are obliged, in consequence of their situation, to rise early after delivery, while the parts are in a relaxed state; it exists in various degrees, and has at

times been known entirely protruded beyond the external parts. The simple prolapsus is distinguished by the appearance of the os tincæ at its inferior part; and previous to this it is preceded by a degree of uterine pain or bearing down, which gradually increases, and produces more or less difficulty in passing the water or even suppression of urine.

Treatment.

Three circumstances tend to counteract the cure of this complaint:

First, The weight and pressure of the organ itself, which possesses a tendency to gravitate downwards.

Second, The relaxed state of the vagina, which is unable to give it support.

Third, The slight resistance of the spincter at the os externum.

In young subjects the reduction of prolapsus is easily effected by,

I. A recumbent posture;

II. The use of styptic washes frequently applied; and,

III. General tonics internally, as the bark, steel, and cold bathing. But when

The disease has continued long;

The descent of the uterus complete; and

The patient in advanced life, this simple treatment will be ineffectual, and recourse must be had, after its reduction, (for which *vide* Vol. I., page 156), to mechanical means for its support; this consists in the use of pessaries.

CHAP. VIII.

DISEASES OF EARLY INFANCY.

Of these, some come under the department of surgery and some of medicine.

SURGICAL DISEASES.

Accumulation of Scalp.

After protracted labor, we frequently find an accumulation of scalp, more or less, according to the time or difficulty of the process, induced by a narrow pelvis; it should be bathed occasionally with vinegar; and generally in

two or three days it goes off, spreading more uniformly over the cranium.

Parietal Tumor.

This is a circumscribed tumor generally on one of the parietal bones; it may arise either from

Accumulation of scalp, or

Some defect in the bone; the tumor will give way, by applying clothes frequently wetted in camphorated spirits of wine, or a a strong astringent lotion. Some are very long in dispersing.

Tongue-tied.

This is not so frequent an occurrence as many people think: to know whether it is so or not, lift up the tongue, and if you find the frænum lingua with its upper part going towards the tip and its lower part leading near to the gums, preventing the tongue being elevated, it is tied. In this case raise the tip with a finger on each side, and cut through the frænum with a pair of sharp funis scissors.

Hernia Umbilicalis.

This is a protrusion of the intestine at the navel; it projects when the child cries. If the hernia is small, apply a piece of sticking plaister, spread on leather firm over it; then a piece of cork suited to the part, with the convex side to the navel, and afterwards a larger piece of sticking plaister over all; if this is constantly kept on, the aperture in time closes.

Lues Venerea.

The most frequent appearance of this disease, is in the form of blotches and ill-conditioned sores on the body. When this occurs, give from two to four grains of hydrargyrus cum creta omni nocte, and the symptoms will gradually disappear; but the medicine must be continued sometime after. Here something depends on the mode in which the child is fed, as it received the disease from the mother through the medium of her constitution: if it be now at the breast, it is a

question whether it be not in danger of keeping up the disease.

Relaxation of the Uvula.

Sometimes children will have a violent fit of coughing, from some irritation about the fauces, as from elongation of the uvula, owing to relaxation; this will keep up a tickling. It should be distinguished from other coughs, as that arising from catarrh, or from inflammation, extending to the bronchial system. If this were the case there would be heat of skin, difficult respiration, and feverish symptoms; but in that produced from relaxed uvula, there are no such symptoms, only difficult respiration at the time the child is swallowing. Take alumen half a grain, and saccharum album two grains, rub them together, and apply it to the part two or three times a day, that it may dissolve there.

Ophthalmia

Is a complaint children are subject to after birth; there is redness and fulness about the

eyelids, and the membrana conjunctiva has more red vessels than usual; after this there is a purulent discharge, which makes the eye-lids adhere, owing to irritation about the eyes. Some think it is from meeting with an acrid humour in the vagina. If the disease be suffered to go on, the cornea becomes opake, and the child will get blind. The cause is generally relaxation of the vessels, therefore the remedies should be of a bracing nature. Zinci sulphas three grains, dissolved in an ounce of spring water, makes a convenient wash; but if it be of some importance to use this, it is of still more to use it properly. Let a few drops of it fall into the eye three or four times a day, and give a few purges with calomel.

Sore Ears.

Excoriations frequently take place behind the ears, especially during dentition. The skin under the lap of the ear is covered with small pustules, and the inflammation extends from one to another. Sometimes a kind of erythematic inflammation takes place without pustules, and ends in vesications, which dis-

charge thin matter. This complaint is not generally dangerous, but it is often troublesome, and causes swelling of the lymphatic glands about the neck. Likewise, children will have a discharge from the ears and vicinity of those parts. If they be of a gross habit give a few purges of calomel, with rhubarb and scammony; but if they be of a weak habit tonics should be given. The best external application is calomel, a drachm, mixt with zinc ointment, an ounce.

But sometimes there is pus from the meatus auditorius; it may be external to the membrana tympani. It is necessary to check this complaint early, for after a time it may form part of the habit of the patient, and then it might be both difficult and unsafe to check. Give mercurial purges, and astringent injections may be frequently thrown into the ear.

MEDICAL DISEASES

That occur in early infancy. Much obscurity may attend this part of the medical

practice, from the uncertainty of diagnosis; and unless we take great pains we shall not always find out the complaint. Enquire after the evacuations, whether the bowels are open, and if there be any thing remarkable in the stools, with respect to colour or smell, and likewise, the manner of their being voided, if by jerks; also as to the actions of the child. Some might think the pulse leads to information, but we can only judge from its strength, and that but seldom; the frequency of it is rarely of any guide, as the pulse of new-born infants is an hundred and twenty, and its acceleration does not keep pace with the degree of fever. We can ascertain the presence and degree of fever better, by heat of skin, thirst, manner of breathing, and appearances; therefore, we should take into account,

First, The want of symmetry of parts;

Second, Evacuations;

Third, Gestures;

Fourth, Starting while asleep, or when awake;

Fifth, State of the skin, its heat, colour, flabbiness, and want of adaptation;

Sixth, State of the eyes, their dulness, pe-

culiar brightness, or dilatation of pupil. And their state when asleep, if a little open;

Seventh, Thirst; and,

Eighth, Difficulty of breathing.

Several authors have written on infantile diseases, and taken it up in different points of view; from whom it appears, that in general, they are induced by three principle causes,

Extreme irritability;

Acrimony in the stomach; and

Over feeding.

I. As to irritability, nervous matter in children bears a considerable ratio to the rest of the body; and if we consider sensibility to be present in proportion to the quantity of the former, it will be accounted for.

II. Acrimony in the stomach: it is very common for children to have acidity in the primæ viæ, evident by the stools being very sour; it may be owing to the food they take, and also to their bile being more diluted, contains less alkali than the bile of an adult; and therefore, it is often necessary to give correctives, as magnesia, &c. But there may be

much acidity, without the child suffering at all from it.

III. Over feeding is another cause. Children have not many wants, and they express these by crying: in general the mode of pacification is by putting them to the breast, without considering, their cries are not always for food; and therefore they take more than is necessary for them; however, a child may relieve itself by regurgitation and vomiting, but this being repeated, the stomach becomes weakened, and then the whole system sympathizes therewith. These are the general causes of disease in children.

Red Gum.

If this can be called a disease. Children will frequently have some red spots over the skin like measles, but they may be distinguished from that disease, by the absence of those symptoms which introduce the measles. As they have no appearent illness we need not give much medicine.

Thrush.

This is a more serious complaint, and it may be suspected when pain is expressed during sucking, with soreness of the nipples. When confined to the mouth it is not very formidable; it is easily known by white specks on the tongue. It admits of distinction into the mild and malignant.

The mild kind treated by local application, as a solution of the white vitriol in common water or barley-water, about one grain to an ounce at first. If that should be too weak, it may be made stronger by degrees. Put a few drops frequently into the mouth, and by the motion of the tongue it will be smeared all over the parts. If the child swallows a little of it now and then, all the better.

The malignant, being attended with fever and watery gripes, is frequently less manageable. Besides cleansing the mouth, attention must be paid to the fever in the beginning, by clearing the primæ viæ. Sometimes the thrush will extend to the œsophagus, and afterwards a similar appearance may be noticed

at the anus. If the fever assume a low form, the child should take decoctum cinchonæ and confectio aromatica, likewise a tea-spoonful of wine may be given frequently.

Acute Convulsions.

Sometimes they are so violent, as to prove fatal in the first attack; therefore, active treatment becomes expedient; or they may continue a long time: these are divided into acute and chronic. As the acute is so dangerous, it is right to look for the cause, as they are generally symptomatic of other complaints; and it may be owing to a stimulus communicated to the nerves, by irritation in the stomach or bowels, or the gums in time of teething. If in the primæ viæ, which is most frequently the case, open the passages with emetics, aperients, or enemas; use the warm bath, and give antispasmodics, as musk, valerian, castor, and assafœtida; the best mode of administering the latter, is in the form of clysters; a scruple of the gum rubbed down, with an ounce and a half of warm water, will be sufficient for each.

Chronic Convulsions.

These are very unmanageable, and often depend upon chronic disease of the head, as mal-formation, they being the idiopathic convulsions will sometimes continue, producing fits, and often terminate in idiotism. Every practitioner at first would endeavour to remove the cause, but when they have arrived at this, there is seldom any relief to be obtained.

Preventive of Small Pox.

To prevent this disease, the vaccine inoculation is now very generally practised. This is productive of a mild and safe process. It is generally done from the age of three to sixteen weeks. It consists of a single vesicle, forming on the part where the inoculation was performed. On the third day the place is lightly red, and feels hard. On the sixth day the redness is increased, and a small vesicle appears, this gradually increases till it is the size of a split pea. Its shape is

circular, acquiring a diameter equal to about the fourth part of an inch. Till the end of the eighth day, the surface is uneven, being depressed in the centre; but on the ninth day it becomes flat, the margins are turgid and rounded, projecting a little over at the base of the vesicle. It contains a clear limpid fluid, like the purest water. About the ninth day the vesicle is surrounded with an areola of an intense red colour, which is hard and tumid. It consists of patches, slightly elevated, and is attended with febrile symptoms. From the twelfth day, as the areola decreases, the surface becomes dark at the centre, the cuticle gives way, and there is formed a glossy hard scab, of a brown colour, which is seldom detached till about the twentieth day. When it falls off, we find a cicatrix, of near half an inch in diameter, and with as many pits as there were cells in the vesicle. The best time to take and use the lymph, is during its crystalline state, generally from the tenth, to the twelfth day.

It is necessary we should know the charac- of the genuine disease, which must go

through the above regular progress; otherwise we cannot be secure against the small pox. Dr. Willan, has characterized three spurious vesicles.

Watery Gripes.

This is very rare when the child is at the breast; although the thrush, or various diseases may occur to induce this complaint, it is generally owing to the deficiency of pure breast milk; for want of which the mother often gives it common spoon victuals; but all children will not live this way at first, and if the complaint comes on, convulsions may succeed, and take the child off suddenly, or in two or three days; therefore, always find out if it be brought on by the want of that fluid.

Wet-nurses who have little milk, will often quiet the child when it wants the breast, by giving Dalby's carminative, or Godfrey's cordial. If the mother be unhealthy, or her milk small in quantity, get a better nurse. When the primæ viæ has been cleared out, and the intestinal irritation still urgent, an injection of chicken's guts, or any kind of broth, twice

a day, will act as an internal fomentation: likewise we should foment externally with the decoction of camomile and poppy heads, and apply a plaster, spread on leather, over the anterior surface of the abdomen, composed of emplastrum opii, half an ounce, camphor and oleum olivæ, of each half a drachm; first rub the camphor with the oil, and then warm the plaster in order to mix them together. In the present state of things internal medicines are proper, as occasionally a grain of calomel at night, and half an ounce of infusum sennæ in the morning; but without a breast of good milk, nothing will do.

Skin Bound.

This disease is divided into the acute and chronic.

The acute species generally appear soon after birth, and proves fatal in the course of a few days. Some children will have it in the last stage of bowel complaints, in which it seems to be only a sequel. The skin is generally of a yellowish white-colour, hard, and resisting to the touch; so fixed to the

subjacent flesh, that it can not slide, nor can it be pinched up. This state is found to extend over the whole body, but the skin is peculiarly rigid about the face and extremities. The child is always cold, and makes a moaning noise.

When the disease appears under a chronic form, the skin from the birth is not so pliable as it generally is, it being very rigid about the mouth, which has more of the orbicular shape than usual. The skin gradually becomes tight, hard, and shining, and of a colour inclined to yellow. In some cases the whole skin is thus affected; in others, chiefly that about the jaws, neck, and joints. Presently the child becomes dull and listless, moans, and gradually sinks, or is carried off by fits. The complaint lasts for several weeks. A variety of remedies have been made use of, such as mercury, laxatives, baths, &c., but seldom with any advantage.

Jaundice.

It is common for children to have a yellowness come on, which may continue several days.

When this occurs soon after birth, it most probably arises from a viscid meconium, or mucus, intercepting the free passage of the bile into the intestines, and will often go off spontaneously; it is frequently removed by a tea-spoonful of castor oil; or a little ipecacuanha-wine, or powder has been recommended to excite vomiting; which, by agitating the stomach and surrounding viscera, will often succeed in giving relief. Gentle friction with the hand upon the abdomen will assist other measures.

But we must distinguish this from organic disease; if there be pain by pressure on the region of the liver, it may be considered a disease of that organ, which is very dangerous. Give a grain of calomel, with a little sugar, occasionally, which being put into the child's mouth dry, will be carried down with the saliva.

Colic.

Sometimes children will have periodical colic, as once a month; it seems to depend on the state of the nurse, for some menstruate,

which affects the milk, and the child is griped; it is not necessary to change her for this, if the child does well at other times; but give carminatives.

Erysipelas Infantalis.

There is often a redness about the navel, and inflammation a little way round, but this is only a slight species of the complaint I mean to describe. The disease I allude to, is generally about the genitals, and spreading in different directions. It will soon destroy the child unless active means are employed; the antiphlogistic plan will not succeed, we must use stimulating applications, as spirits of camphor, constantly applied; also internally give cordial remedies, as decoctum cinchonæ, cum confectio aromatica; if these run off by the bowels, and opium does not succeed, give a little wine every day.

Management of Young Children.

There is nothing that contributes more to make sucking infants, during the first months,

thriving and healthy, than to prevent their catching cold, by keeping them in a proper warmth, as dry as possible, and rubbing their limbs and belly frequently with a warm hand before the fire. It is truly pleasing to see how soon they delight in this exercise, and how strongly they express the comfort it gives them. Likewise the child should never be laid down to sleep after it has been suckled or fed, till it breaks wind, which is generally the effect of the above means.

First, If it is preserved from catching cold;

Second, Kept as dry as possible;

Third, The limbs and belly rubbed frequently and for a good while together, with a warm hand, before the fire.

Fourth, If it has been born to the full time;

Fifth, Of healthy parents; and,

Sixth, Is suckled by a healthy nurse, careful of her diet, we need not be much afraid, either of the

Thrush,

Green stools,

Watery gripes, or even of

Convulsions.

Early Dentition.

Sometimes a child is born with teeth, it is a rule to take them out immediately after delivery. The earliest period of beginning to cut the temporary teeth, is the third or fourth month. They generally appear in the following order, and consist of about eighteen or twenty:

9 5 7 3 2 2 3 7 5 9
0 6 8 4 1 1 4 8 6 0

These are all the diseases we think necessary to comment on, as occuring in early infancy.

DIRECTIONS FOR DRY-NURSING.

Though I never recommend bringing up a child by hand if there is a possibility of avoiding it.

But there are many causes which prevents suckling,

First, Want of health in the mother, or sufficient vigor in the constitution, she is not able to suckle her infant herself, nor willing to commit it to other hands for that purpose.

Second, Too small or ill-formed nipples, so that the child cannot lay hold of them.

Third, Some mothers whose situation in life will not allow them to perform this duty; and,

Fourth, There are infants that will not take the breast; besides other causes which will be occasionally noticed.

Therefore, I have offered a few directions respecting dry-nursing. But, though I do not advise dry-nursing of infants when they can be properly suckled, yet I would not have parents to be discouraged from trying it, being firmly persuaded that if a child is born pretty strong and healthy, it had better be brought up by hand, in the method to be explained, than suckled by an ailing nurse, or one that has not a sufficient quantity of milk. For when I speak of a child being properly suckled, I mean by a nurse who is healthy,

sober, good tempered, cleanly, careful, and has plenty of good milk. A wet-nurse ought likewise to have pretty strong nerves; for if she is weak, the least surprise will have a bad effect upon the milk; or if a child happens to be suddenly taken ill, from the fright and anxiety it occasions in the nurse, the milk is sometimes quickly dried up, when perhaps the infant has the most occasion for it. For this reason some mothers, who are very fond of their children, make but bad wet-nurses, though well enough qualified for it in other respects.

Again, the nurse may be taken suddenly ill, in which the infant of course must suffer, and probably catches the distemper, if the disease be infectious; at least it must be weaned, perhaps when it is about teething, which may produce fatal effects. In this case you will say another nurse must be found; but if it is the mother that suckles the child, she will be loath to part with it; and you must not be too positive with her, nor tell her the danger she and the child are in, for fear of alarming her, and thereby increasing the danger. Besides, you are not certain the child will take to

another breast; for some of them begin very early to know their nurse, and will not be suckled by another without great difficulty.

Further, a good wet-nurse is not always easy to be had; and hence, some parents, when the mother cannot suckle the child herself, prefer bringing it up by hand. Again, if it should not be the mother but a wet-nurse that suckles the child and is taken ill, the infant must still be weaned, and the weaning will be attended with the inconvenience just now mentioned.

The Food.

I now mention the food which is fittest for infants.

With regard to which, whether the child is suckled or not; I think the best food is the top crust of quartern bread, boiled in soft-water to the consistence of pap, and passed through a silver or tin strainer, sweetened moderately with soft sugar, unless the child is in a lax habit of body, in which case the finest loaf-sugar should be used.

Before the child is weaned the victuals

should be made thicker, by which means it will become less fond of the breast, and consequently easier to wean.

If the infant is to be brought up by hand from the birth, it ought to have new cow's milk mixed with its victuals. Asses milk will be still better when it can be procured.

If the child is troubled with wind, boil a bit of whole ginger in its pap; and if it is costive, sweeten it with manna occasionally instead of sugar.

It should have now and then, by way of drink between the times of feeding, water, in which a piece of upper crust of bread has been boiled, mixed with an equal quantity of new milk, with or without a small portion of sugar.

When the child comes to be about four months old, the milk victuals will be more apt to grow sour upon its stomach; therefore it will be right to change it occasionally for weak broth, either of chicken, veal, mutton, or beef-tea.

As soon as the child can hold any thing in its hand, the nurse should every morning, or oftener, give it a piece of the upper crust of a

loaf, cut in the shape and about the size of a large savoy biscuit. The child will gnaw and swallow it by degrees, which will not only help to nourish it, but bring a great quantity of saliva into the mouth, whereby the gums will be softened, and at the same time, by the gentle and repeated friction, the cutting of the teeth will be greatly promoted.

The victuals should be made fresh

Twice a day in winter, and

Three times a day in summer, and the milk must never be boiled with the pap. When new milk is used, boiling it is unnecessary.

About the age of six months you may begin to give the child at noon a bit of any white meat, minced small, or light bread-pudding.

Times of Feeding.

As to the time of feeding an infant. When it is very young there can be no regular times fixed; but by degrees, as it gets older, we should leave off the habit of feeding it in the night. Make it a rule never to force victuals down, when the child refuses it.

After a child has fasted for a good while,

or has had a long sleep, it is right to offer it food; if it refuses to feed, amuse and give it exercise till the appetite returns.

The following method will contribute towards the child's resting in the night: the last thing the nurse does before she goes to bed, is to take up the child, even if it be asleep, open it before the fire, turn it dry, and feed it.

The opening it before the fire, &c. rouses a child sufficiently out of its sleep, to make it take nourishment; but at the same time, disturbes its rest so little, that it frequently does not open its eyes the whole time it is a feeding; and after breaking wind, is to be put into bed again, and it will seldom want any thing till about six or seven o'clock in the morning.

Clothing.

As to clothing, children should have nothing tight about them, and as few pins as possible. Nurses should be careful to keep them dry, as wet napkins remaining on them, is very weakening and unwholesome.

The keeping of infants warm, so as to preserve them from catching cold, during the first five or six months, is of so much consequence with regard to their future health and thriving, that the greatest care should be taken in this point.

Sleep.

Young children, if well, are much inclined to sleep. The infant having lain so long dormant in its mother's womb, it requirs a good while after it is born for that habit to wear off; and in general, the more it sleeps at first the better.

Some infants are more wakeful in the night than in the day, as this is hurtful, they ought to be broke of it. The safest and most natural way of attaining this end, is by keeping them awake as much as you can throughout the day, and feeding them pretty plentifully the last thing at night.

Exercise.

Children must depend upon nurses for their proper exercise; and there is nothing more conducive to their thriving than this.

The first exercise I shall mention is dangling, which is of service to divert and keep them awake; it should never be done with a jerk; neither should they be hoisted up high, as some people heedlessly do, for they are susceptible of fear, even as soon as they are born. Shaking, swinging, or jolting, should be done very gradually, and not attempted too soon.

But the most useful exercise for young infants, is rubbing them with the hand, which cannot be too often repeated, nor continued too long at a time. They should be well-rubbed all over before the fire, twice a day at least, and the rubbing should be repeated from the loins downwards every time they are turned dry.

Washing.

Another good preservative against a child's catching cold, is for the nurse every morning before the child is dressed, (having first rubbed it,) to wash its back, loins, groins, and between its thighs, as also its limbs all over, with cold water, and afterwards to dry them carefully. The head and behind the ears,

the neck, arms, arm-pits, and hands, should be washed in the same manner and dried. If the nurse observes that the skin seems any where to be chafed, after dabbling the part well with cold water, and drying it gently with a fine cloth, let her apply some common powder to it by means of a soft puff. But if much galled, from the heat and sharpness of the urine, which will sometimes happen about the time of teething, especially to fat children, she must take some fuller's-earth, and dissolve it in a sufficient quantity of cold water, and after standing long enough to acquire the consistence of cream, rub it gently in its cold state, upon the parts once or twice a day.

These are the most material rules to be observed in dry-nursing; and it is obvious that most of them are equally applicable, to the management of children at the breast.

WET-NURSES.

It is usual at the end of a course of midwifery lectures, to make some remarks concerning wet-nurses. The former subject contains several useful observations of this nature; therefore, shall say but little here upon that head. They are in general a troublesome set of people, and we are in a manner responsible for the conduct of those whom we recommend.

We may be asked as to the fitness of a woman for a wet-nurse; we can tell whether there be milk, by putting the child to the breast, and drawing it away suddenly; if there is much milk, it will run a little time after; but we cannot tell her state of health, she may look well, and have the venereal disease in her constitution, consequently the child would be affected, and the blame cast on us. Therefore, when applied to, I give in directions for different nurses, and leave the patient to make the proper enquiries. One that has had a

second child should be preferred, because she is endowed with more experience in the management of children; likewise, it should be one whose milk comes nearest to the age of that of the mother.

Quality of the Milk.

Its qualities are distinguished by,

First, The fluidity; this may be seen by throwing it on the side of the glass, or by letting a drop fall on the nail, if it runs off immediately, the milk is too thin; if the drop stands in a rounded globe, it is too thick; but when the drop remains in a flattened form, the milk is judged to be of a right consistence.

Second, The taste; it ought to be sweet.

Third, The colour; it should be inclining to blue, rather than yellow; and,

Fourth, The appearance of her own child; it should be that of health.

FINIS.

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THE END.

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